

LBT-G3000

SERVICE MANUAL

US Model
Canadian Model

LBT-G3000 is composed of following models.

As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

Stereo Deck Receiver	HCD-G3000
Speaker System	SS-G3000

PARTS LIST

NOTE :

- Items marked “ * ”are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Part No.	Description
1-501-374-11	ANTENNA, LOOP
1-501-659-41	ANTENNA (FM)
3-758-592-61	MANUAL, INSTRUCTION (US) (ENGLISH)
3-758-592-71	MANUAL, INSTRUCTION (Canadian) (ENGLISH, FRENCH)
* 4-971-631-01	INDIVIDUAL CARTON (US)
* 4-971-632-01	INDIVIDUAL CARTON (Canadian)

Part No.	Description
1-467-430-11	COMMANDER, STANDARD (RM-S221)
2-181-754-21	COVER (MLY), BATTERY (FOR RM-S221)
* 3-376-136-01	CUSHION (HALF) (HCD)
4-937-945-11	PLATE (TRANSPORT), LOCK (HCD)
* 4-963-173-11	CUSHION (HCD)
* 4-964-535-01	CUSHION (SS)

COMPACT Hi-Fi STEREO SYSTEM
SONY®

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

9-959-977-11

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Quality Engineering Dept.

HCD-G3000

SERVICE MANUAL

US Model

Canadian Model



HCD-G3000 is the tuner, deck, CD and amplifier section in LBT-G3000 respectively.

CD Section	Model Name Using Similar Mechanism	HCD-A195
	Base Unit Name	BU-5BD13
DECK Section	Model Name Using Similar Mechanism	HCD-A195
	Tape Transport Mechanism Type	TCM-180VW-H10

SPECIFICATIONS

Tuner

System	FM stereo FM/AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 to 108 MHz
Antenna	75 ohms unbalanced 300 ohms balanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	530 to 1,710 kHz
Antenna	AM loop antenna External antenna terminal
Intermediate frequency	450 kHz

Amplifier

Continuous RMS power output	25 W + 25 W (6 ohms, at 1 kHz, 5% THD)
-----------------------------	--

Input	Jack type	Sensitivity	Impedance
VIDEO	Phono	300 mV	47 kilohms

Output	Jack type	Impedance
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response 15 Hz to 50 kHz ± 0 dB

Cassette deck

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF
	With Sony Type II cassette 40 Hz to 14 kHz (± 3 dB)
	With Sony Type I cassette 40 Hz to 13 kHz (± 3 dB)
Wow and flutter	0.1% (WRMS)

Compact disc player

Laser	Semiconductor laser
Wavelength	780 - 790 nm
Frequency response	2 Hz to 20 kHz (± 0.5 dB)
Signal-to-noise ratio	More than 93 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.01% (1 kHz)
Channel separation	More than 90 dB (1 kHz)

General

Power requirements	120 V AC, 60 Hz
Power consumption	100 W
Mass	Approx. 10.8 kg (23 lb 13 oz)
Dimensions	Approx. 355 x 395 x 405 mm (14 x 15 $\frac{3}{8}$ x 16 inches) (w/h/d, including projections)

—continued on next page—

COMPACT DISC DECK RECEIVER
SONY®

SAFETY CHECK-OUT

Supplied accessories

FM wire antenna	(1)
AM loop antenna	(1)
Remote commander RM-S221	(1)
Batteries Sony SUM-3 (NS)	(2)

Design and specifications are subject to change without notice.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 5 mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 7.5V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 20V AC range are suitable. (See Fig. A)

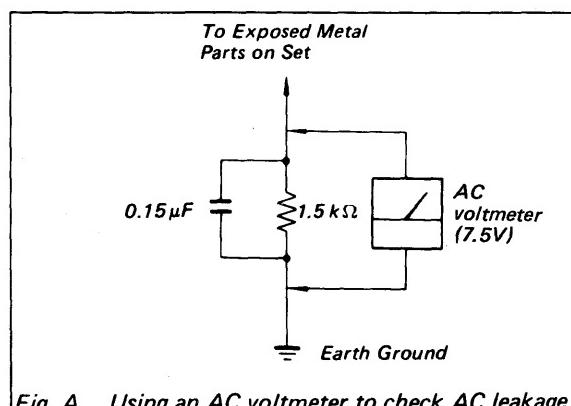


Fig. A. Using an AC voltmeter to check AC leakage.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

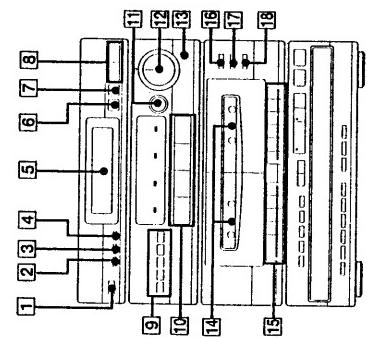
LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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Location of Controls

Refer to the pages indicated in parentheses for details.



- Tuner**
- [1] POWER switch (7)
 - [2] MEMORY button (11)
 - [3] STEREO/MONO button (10)
 - [4] TUNING/PRESET button (9, 11, 12)
 - [5] Display window
 - [6] BAND button (9)
 - [7] SHIFT button (11, 12)
 - [8] DUAL MODE TUNING +/− buttons (9, 10, 11, 12)
- Amplifier**
- [9] PRESET EQUALIZER buttons and indicators (8)
 - [10] Function selectors and indicators
 - [11] SURROUND control (8)
 - [12] VOLUME control (8)
 - [13] HEADPHONES Jack (8)

- Cassette Deck**
- [14] Cassette holders
 - [15] Tape operation buttons (13)
 - ◀ Leftward fast winding
 - ▶ Rightward fast winding
 - ▶ Forward play
 - Stop/eject
 - PAUSE/Pause
 - REC Record (only for deck B)
 - [16] DOLBY NR (Noise Reduction) (ON/OFF) switch (13, 14, 16)
 - [17] TAPE SELECT (TYPE I/TYPE II) button (13, 14, 16)
 - [18] DUBBING SPEED (HIGH/NORMAL) button (16)

Compact Disc Player

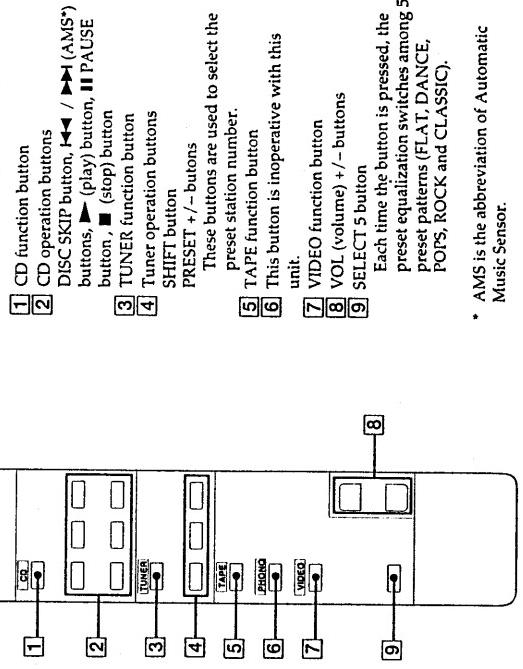
- [19] DISC SELECT 1-5 button (17, 19, 20, 21, 22)
- [20] Disc Tray
- [21] TIME button (18)
- [22] REPEAT button (25)
- [23] MUSIC SCAN button (24)
- [24] CHECK (program check) button (22)
- [25] CLEAR (program clear) button (22)
- [26] EDIT button (26)
- [27] PLAY MODE buttons
 - CONTINUE button (20, 22, 27)
 - SHUFFLE button (20)
- [28] ▶/◀/▶AMS* buttons (19)
- [29] ▶ (play) button and indicator (17)
- [30] □ (pause) button and indicator (17)
- [31] DISC SKIP button (17, 19)
- [32] ▲ OPEN/CLOSE button (17)
- [33] ■ (stop) button (17)

* AMS is the abbreviation of Automatic Music Sensor.

SECTION 1 GENERAL

This section is extracted from instruction manual.

Remote Commander RM-S221



- [1] CD function button
- [2] CD operation buttons
 - DISC SKIP button, ▶◀ / ▶▶ (AMS*) buttons, ▶ (play) button, ■ (PAUSE) button, □ (stop) button
- [3] TUNER function button
- [4] Tuner operation buttons
 - PRESET +/− buttons
 - These buttons are used to select the Preset station number.
- [5] TAPE function button
- [6] This button is inoperative with this unit.
- [7] VIDEO function button
- [8] VOL (volume) +/− buttons
- [9] SELECT 5 button

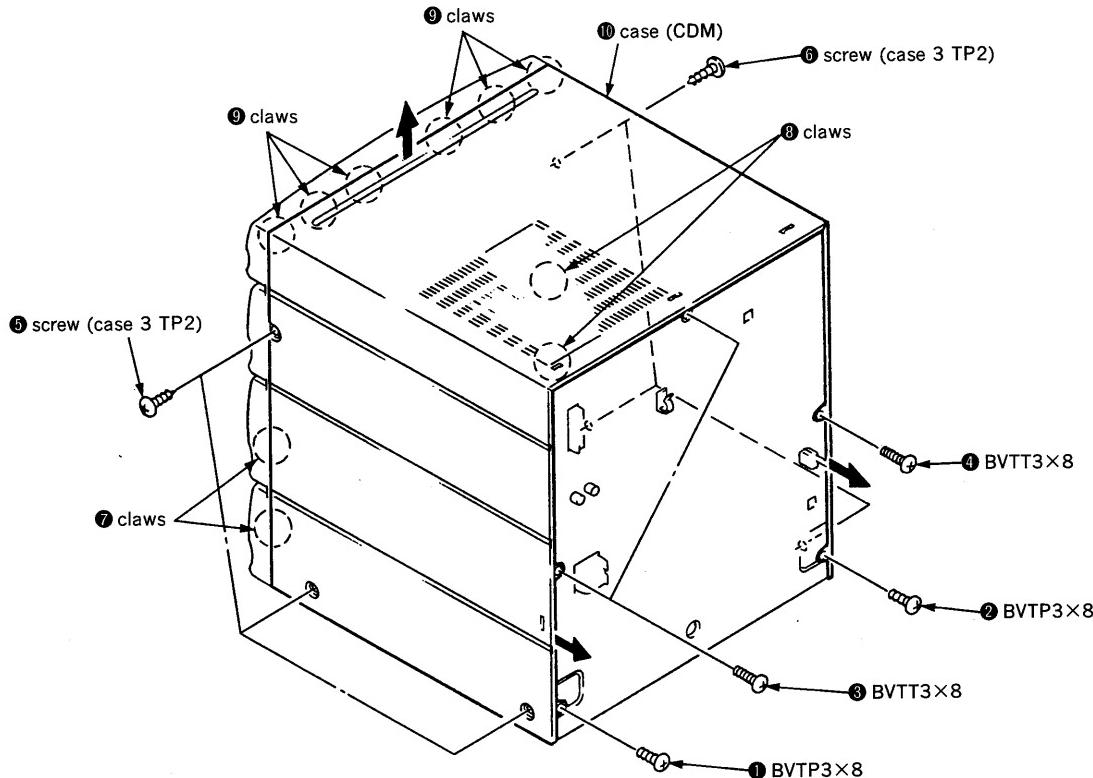
Each time the button is pressed, the preset equalization switches among 5 preset patterns (FLAT, DANCE, POPS, ROCK and CLASSIC).

* AMS is the abbreviation of Automatic Music Sensor.

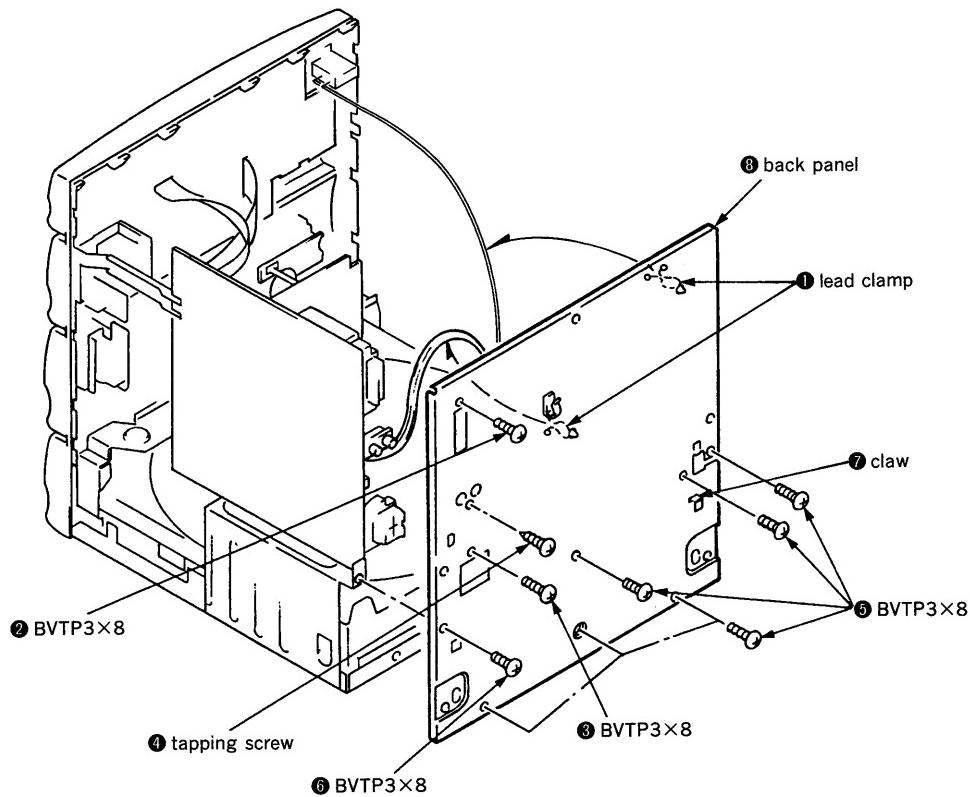
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

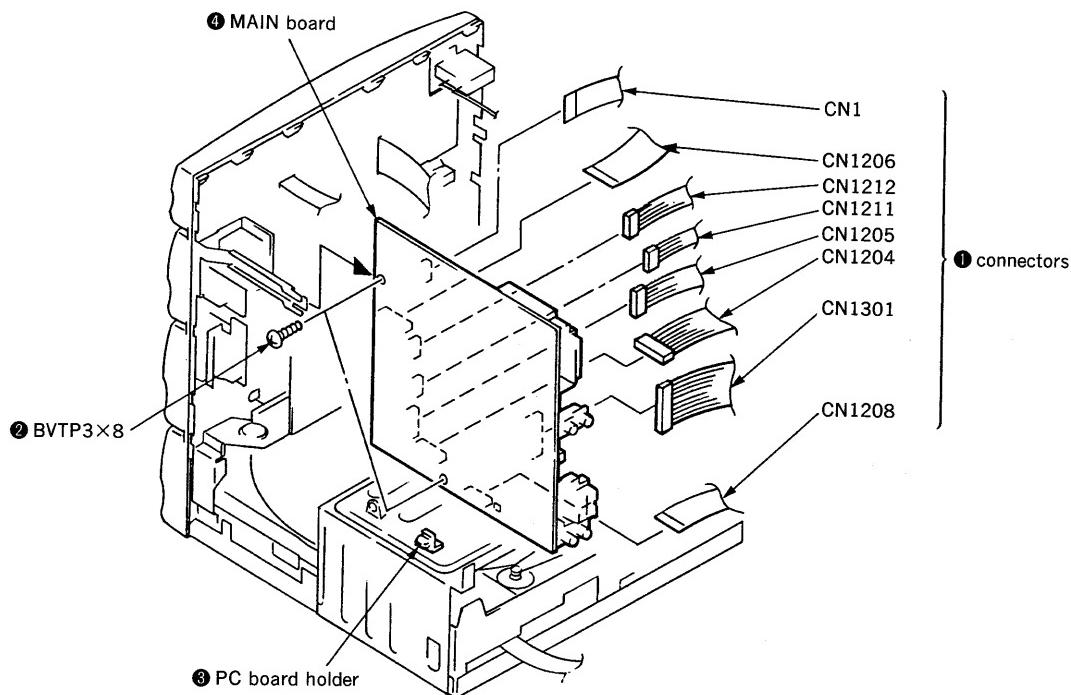
2-1. CASE (CDM)



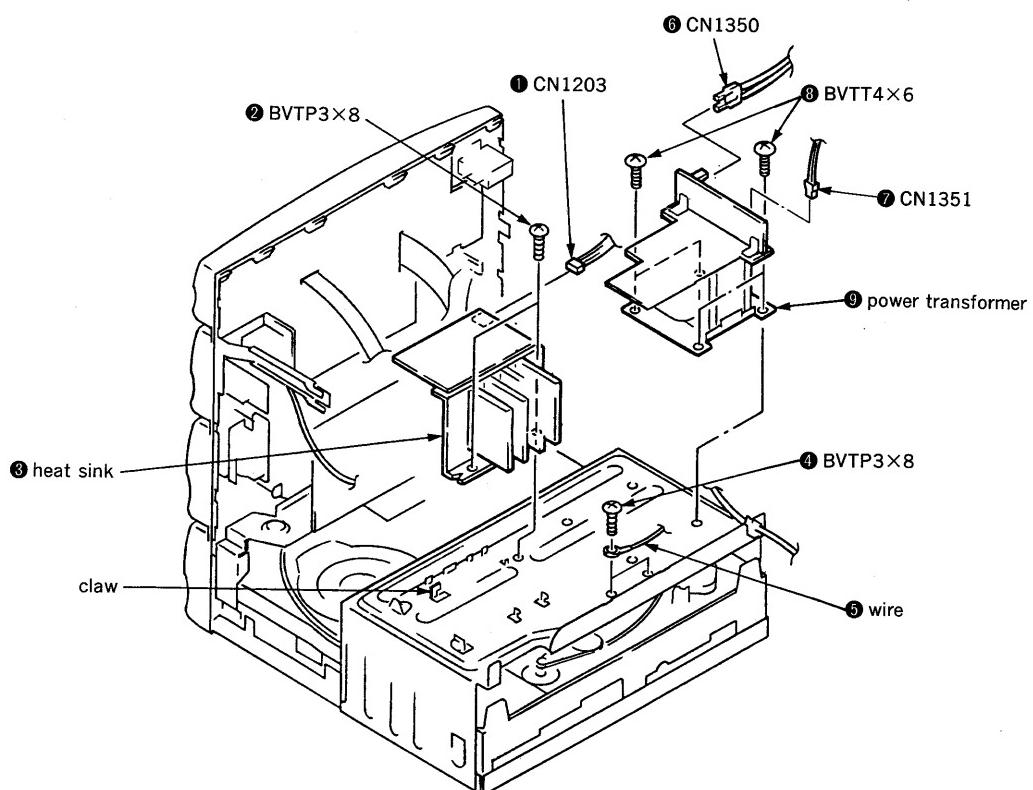
2-2. BACK PANEL



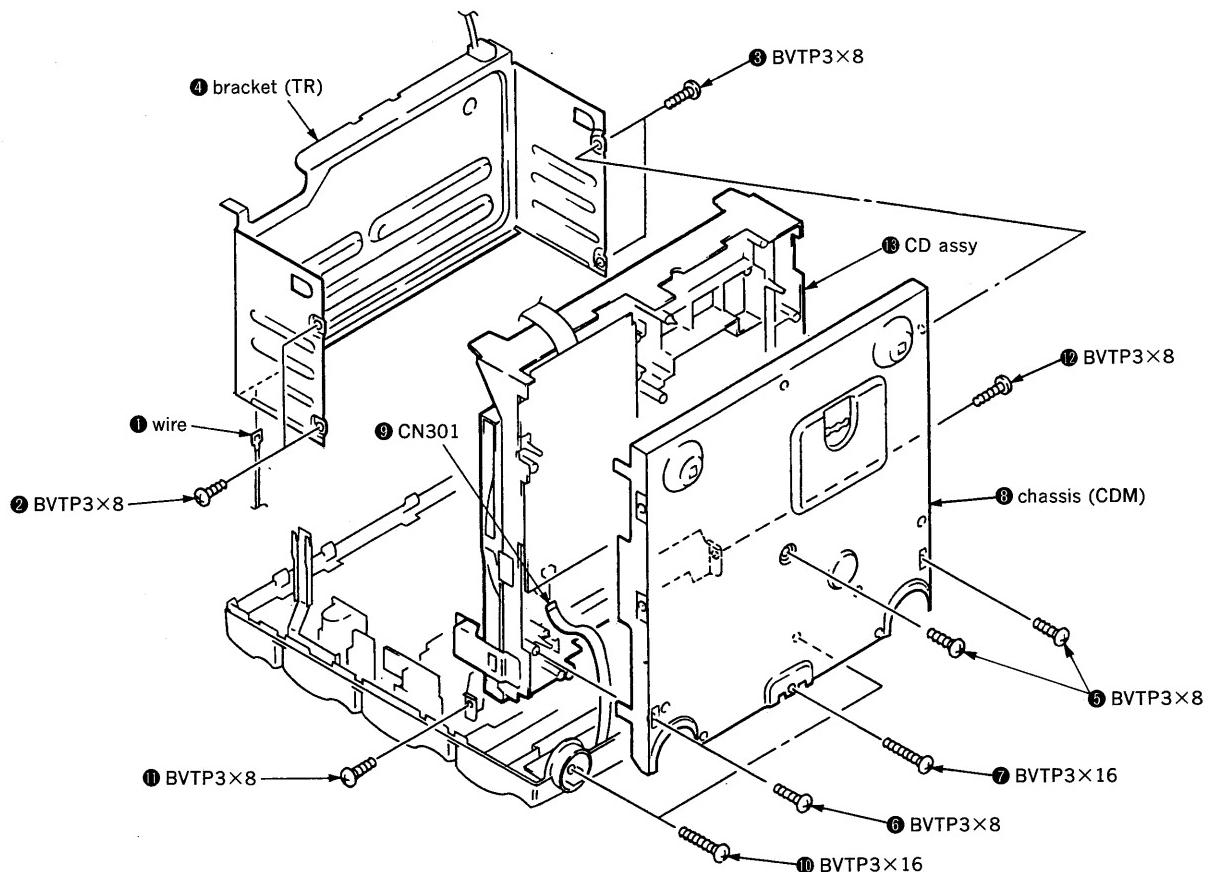
2-3. MAIN BOARD



2-4. POWER TRANSFORMER

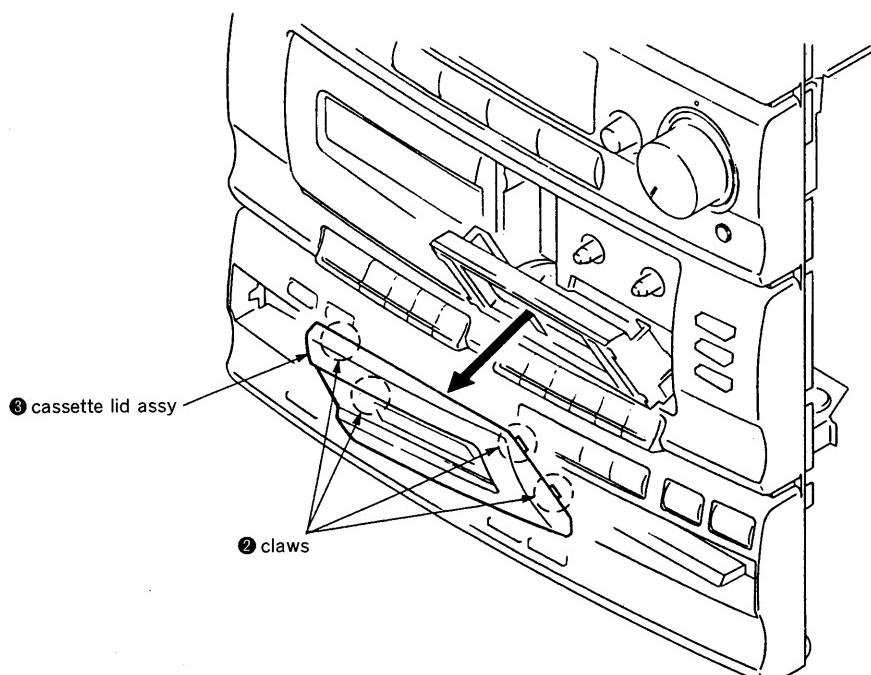


2-5. CD ASSY



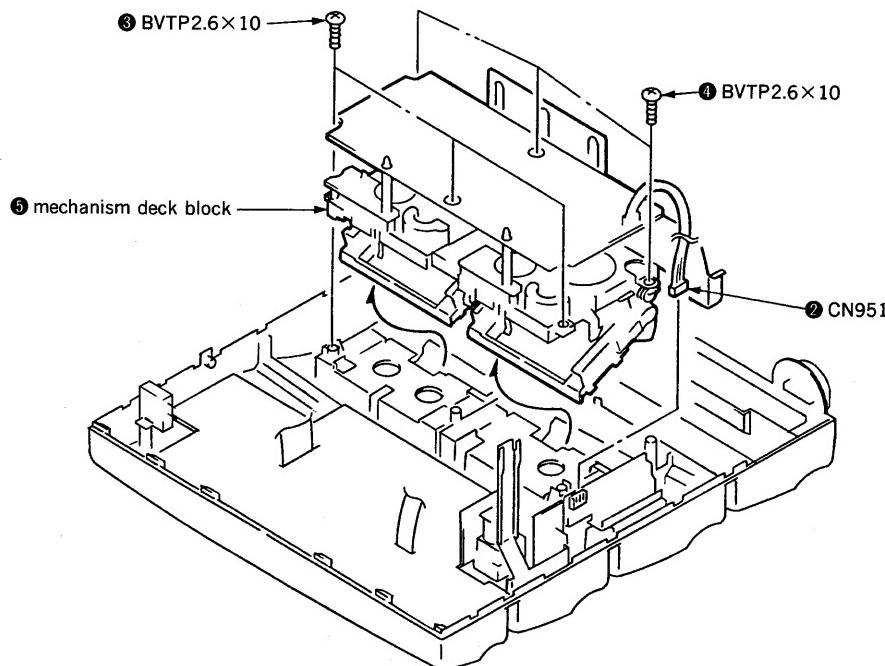
2-6. CASSETTE LID ASSY

① Push the EJECT button.

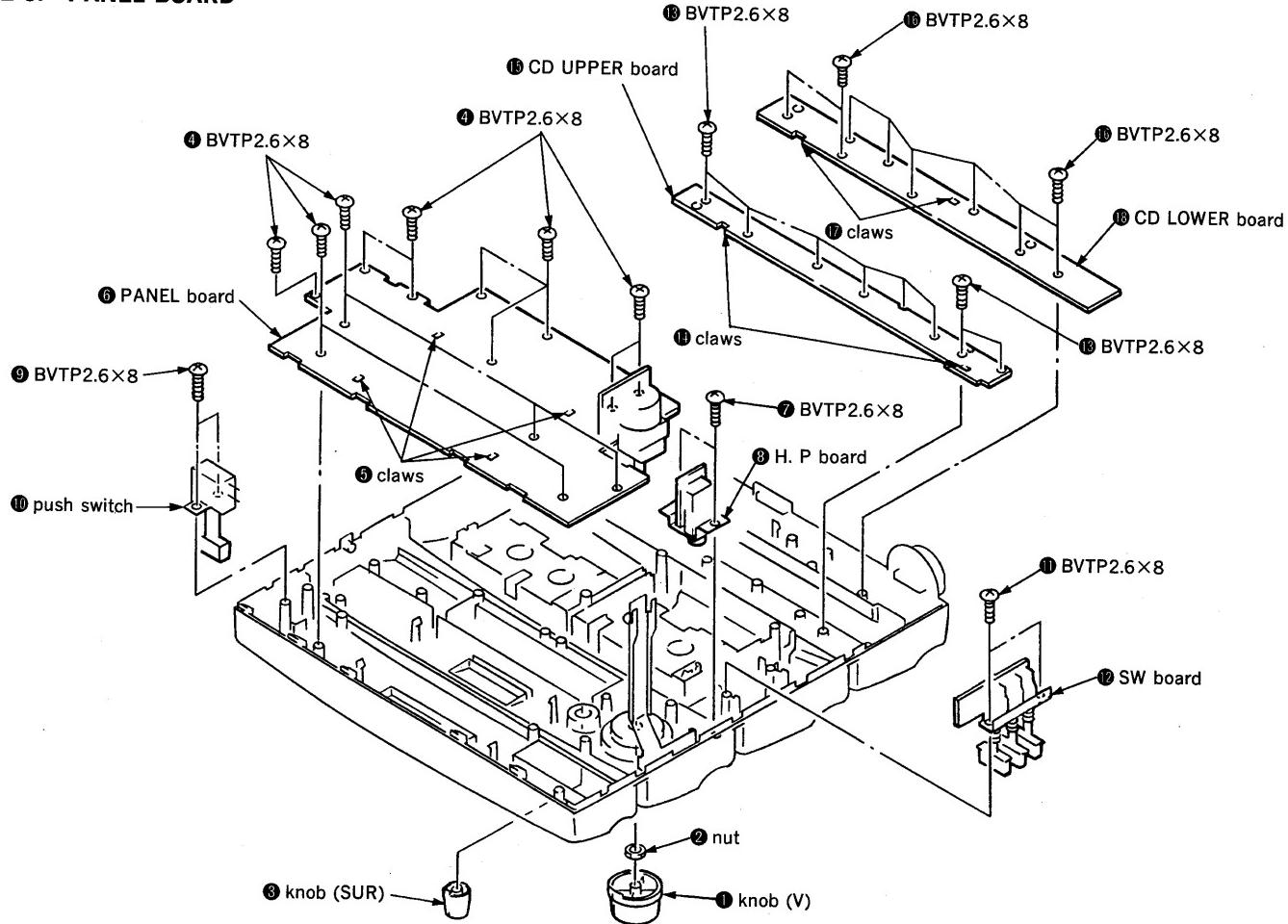


2-7. MECHANISM DECK BLOCK

- ① Push the EJECT button.



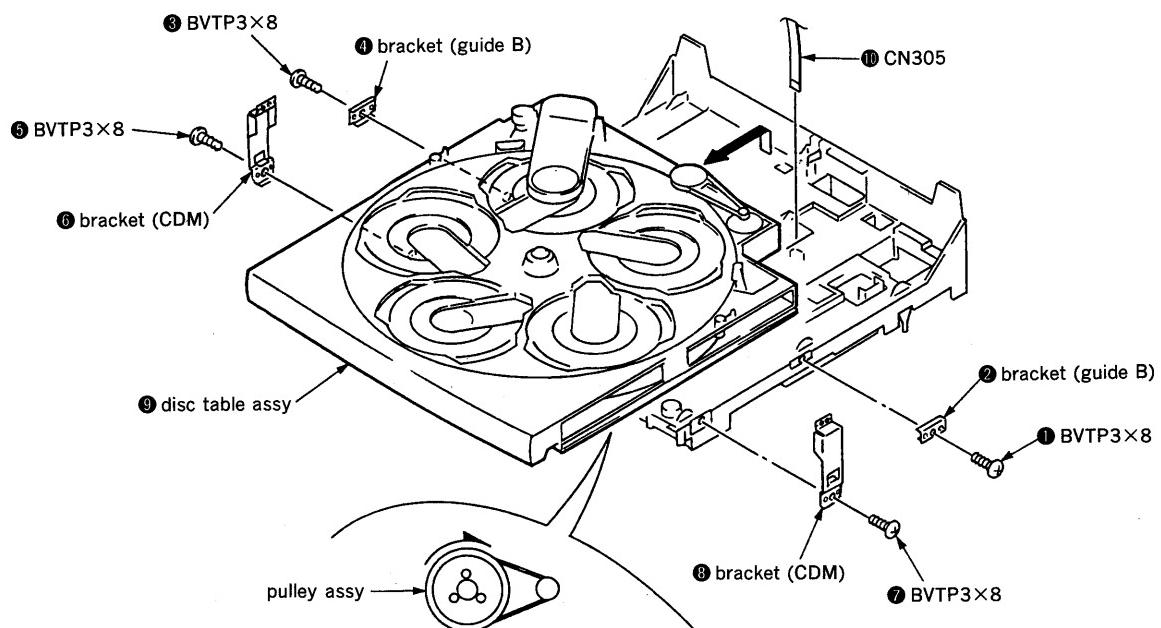
2-8. PANEL BOARD



2-9. DISC TABLE ASSY

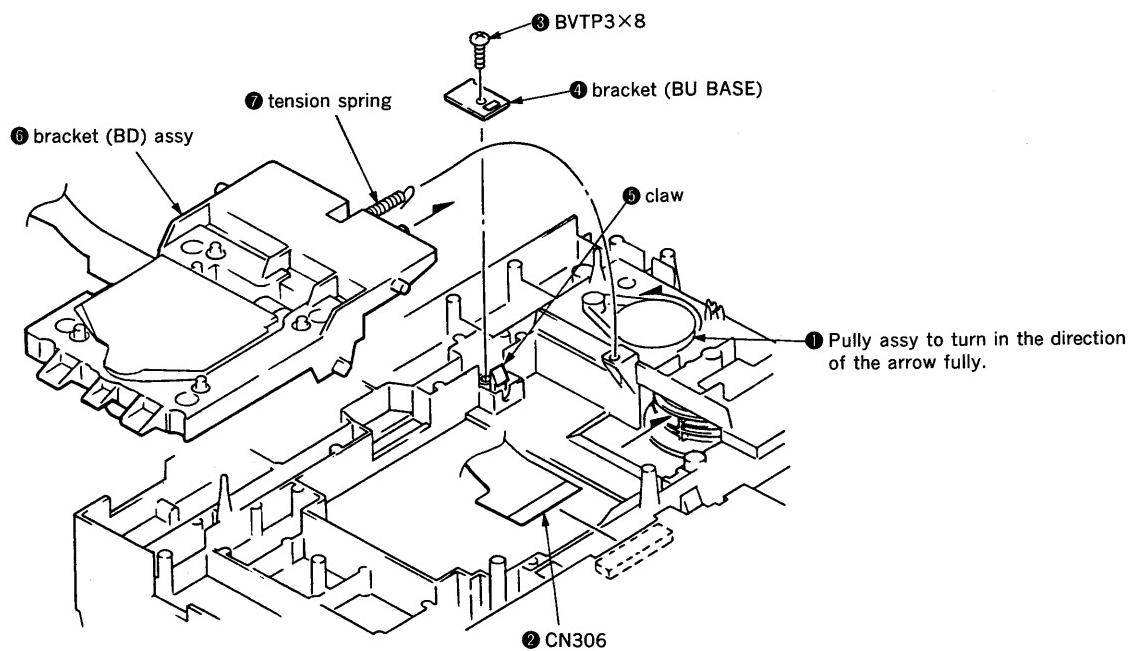
Note on assembly: Turn the pulley assy in the direction of the arrow.

Down the bracket (BD) assy, and assembly the disc table assy.



2-10. BRACKET (BD) ASSY

Note on assembly: Set to the arrow portion of gear (loading A) for shaft (CAM).



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured alcohol-moistened swab :

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idle
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30-70g·cm (0.42-0.97oz·inch)
FWD Back tension	CQ-102C	1.5-5.5g·cm (0.020-0.076oz·inch)
FF/REW	CQ-201B	63g·cm or more (0.87oz·inch or more)

SECTION 4 ELECTRICAL ADJUSTMENTS

DECK SECTION **0dB=0.775V**

- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-CH.

• Switches and controls should be set as follows unless otherwise specified.

TAPE SELECT switch : TYPE I
DOLBY NR switch : OFF

Type	Signal	Used for
P-4-A100	10kHz, -10dB	Azimuth Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment

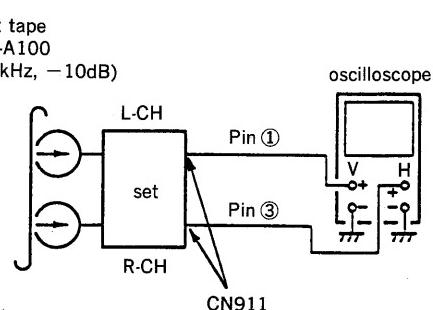
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

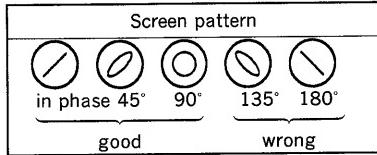
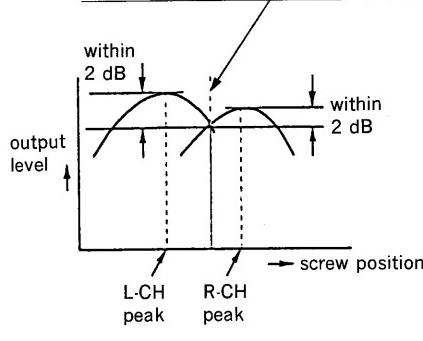
Note : Perform this adjustments for both decks.

Procedure :

- Mode : Playback

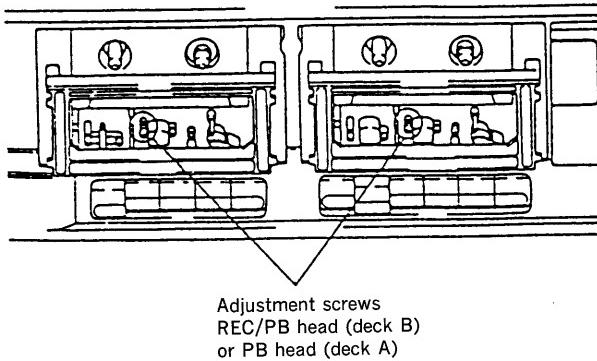


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 2 dB of peak.



3. After the adjustments, apply suitable locking compound to the parts adjusted.

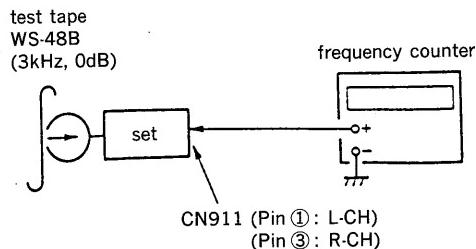
Adjustment Location :



Tape Speed Adjustment **DECK A** **DECK B**

Procedure :

Mode : Playback



High speed adjustment (Must be first Adjustment deck B)

1. Short pin CN912 on set "DUBBING SPEED" switch to "HIGH". Then at HIGH speed mode.
2. Adjust RV901 so that the frequency counter reads 6,000±20Hz.

Normal speed adjustment

1. Remove the short pin from CN912 on set "DUBBING SPEED" switch to "NORMAL". Then at NORMAL speed mode.
2. Adjust RV902 so that the frequency counter reads $3,000 \pm 10\text{Hz}$.

Frequency difference between deck A and deck B the beginning of the tape should be within $\pm 1\%$.

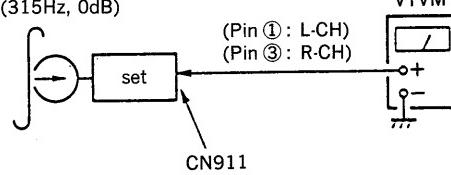
Adjustment Location : main TC board

Playback Level Adjustment **DECK A** **DECK B**

Procedure :

Mode : Playback

test tape
P-4-L300
(315Hz, 0dB)



Deck A side RV701 (L-CH), RV801 (R-CH)

Deck B side RV702 (L-CH), RV802 (R-CH)
so that the limits below are satisfied.

Adjustable limits :

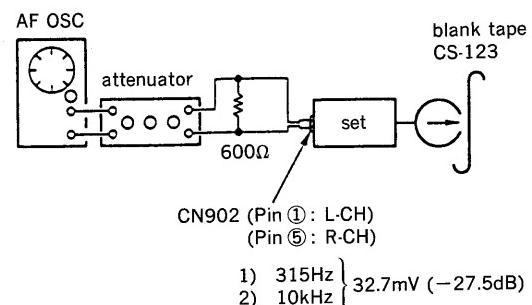
CN911 PB level : 366.7 to 411.4mV (-6.5 to -5.5dB)
level difference between the channels : within $\pm 1\text{dB}$

Adjustment Location : main TC board

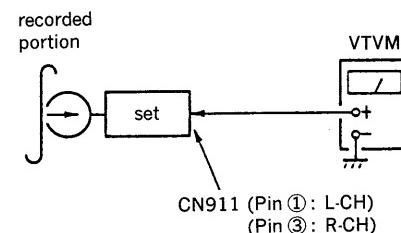
Record Bias Current Adjustment **DECK B**

Procedure :

1. Mode : record



2. Mode : Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

If these levels do not adjustable limits, adjustment the RV704 (L-CH) and RV804 (R-CH) to repeat steps 1 and 2.

Adjustable limits : Playback output of 315Hz to playback output of 10kHz : $0 \pm 0.5\text{dB}$

Adjustment Location : main TC board

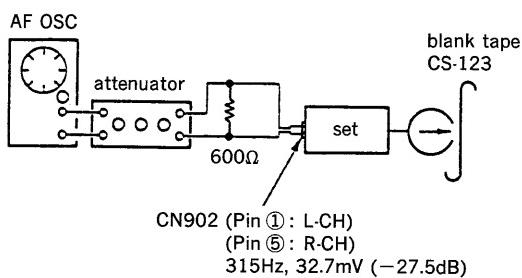
Record Level Adjustment **DECK B**

Setting :

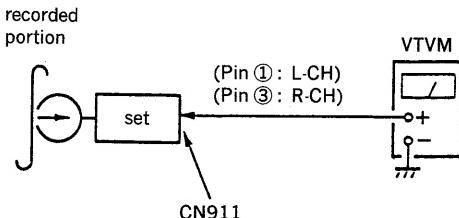
TAPE SELECT switch : TYPE I

Procedure :

1. Mode : record



2. Mode : playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

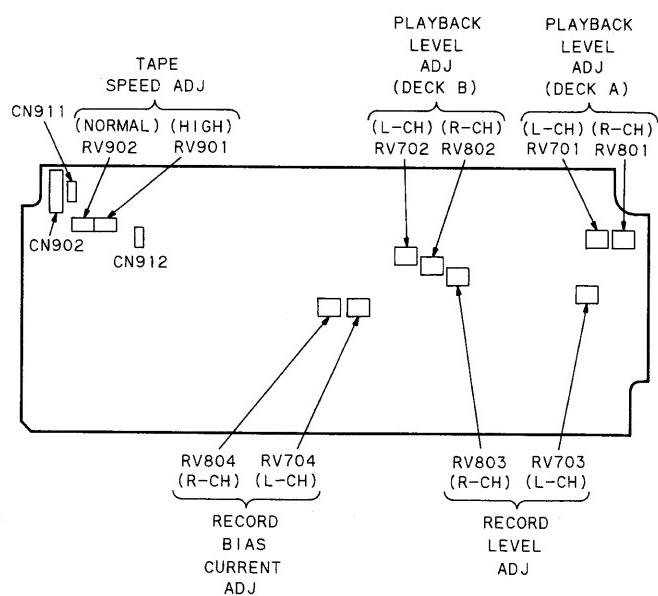
If these levels do not adjustable limits, adjustment the RV703 (L-CH) and RV803 (R-CH) to repeat steps 1 and 2.

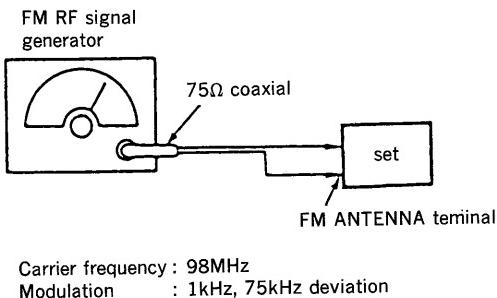
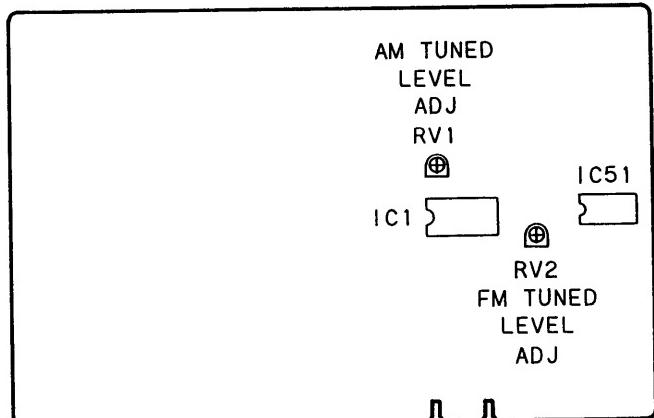
Adjustable limits :

CN911 PB level : 30.9 to 34.6mV (-28 to -27dB)

Adjustment Location : main TC board

Adjustment Location : main TC board (component side)

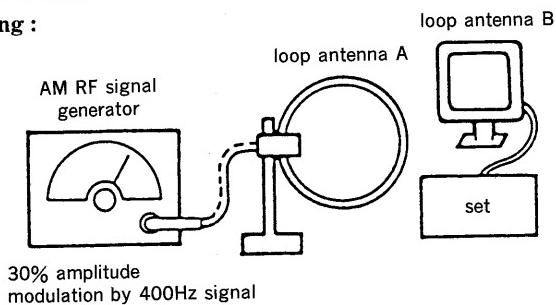


TUNER SECTION0dB = $1\mu\text{V}$ **• FM SECTION****Setting :****Adjustment Location :** main board (component side)**FM Tuned Level Adjustment**

Band : FM

Procedure :

- Supply a $17.8\mu\text{V}$ ($25\text{dB}\mu$) 98MHz signal from the ANTENNA terminal.
- Tune the set to 98MHz.
- Adjust RV2 so that the TUNED indicator goes on.

Adjustment Location : main board**• AM SECTION****Setting :****AM Tuned Level Adjustment**

Band : AM

Procedure :

- Set loop antenna A so that the loop antenna B input level becomes 0.32mV ($50\text{dB}\mu$).
- Tune the set to 1,050kHz.
- Adjust RV1 so that the TUNED indicator goes on.

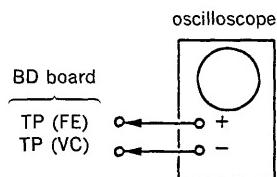
Adjustment Location : main board

CD SECTION

Note :

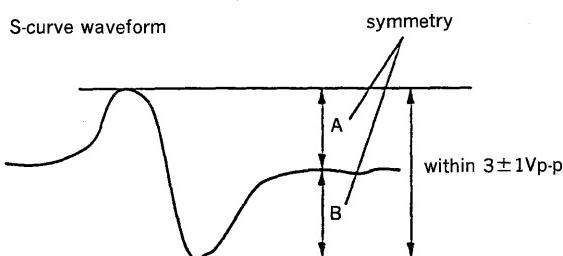
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.
4. Clean an objective lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (Actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.

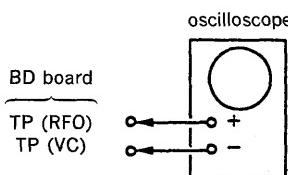


6. After check, remove the lead wire connected in step 2.

Note :

- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

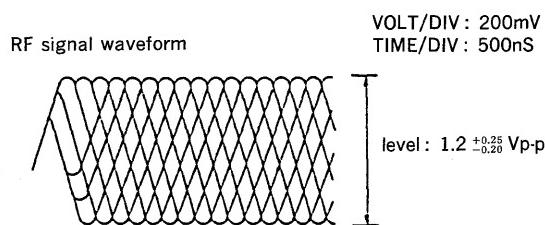
RF Level Check



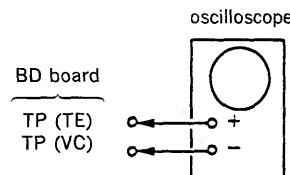
Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note : Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.



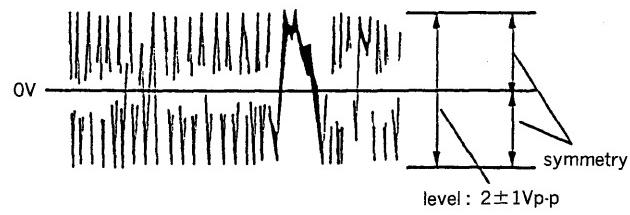
E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) is and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse waveform

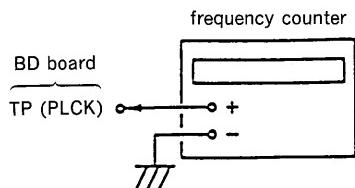


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PLCK) with lead wire.

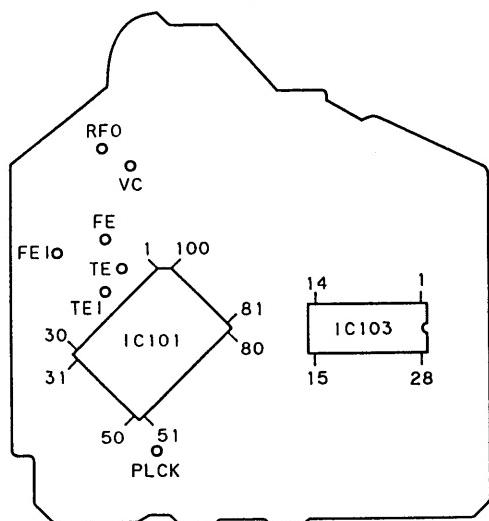


2. Turned Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

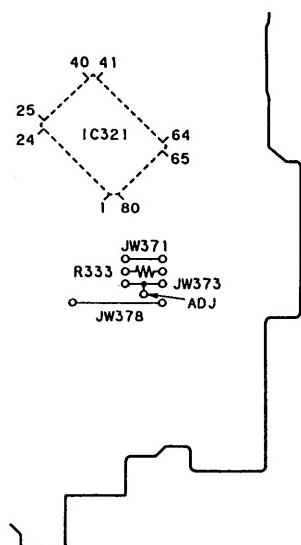
[BD BOARD]

—Side B—



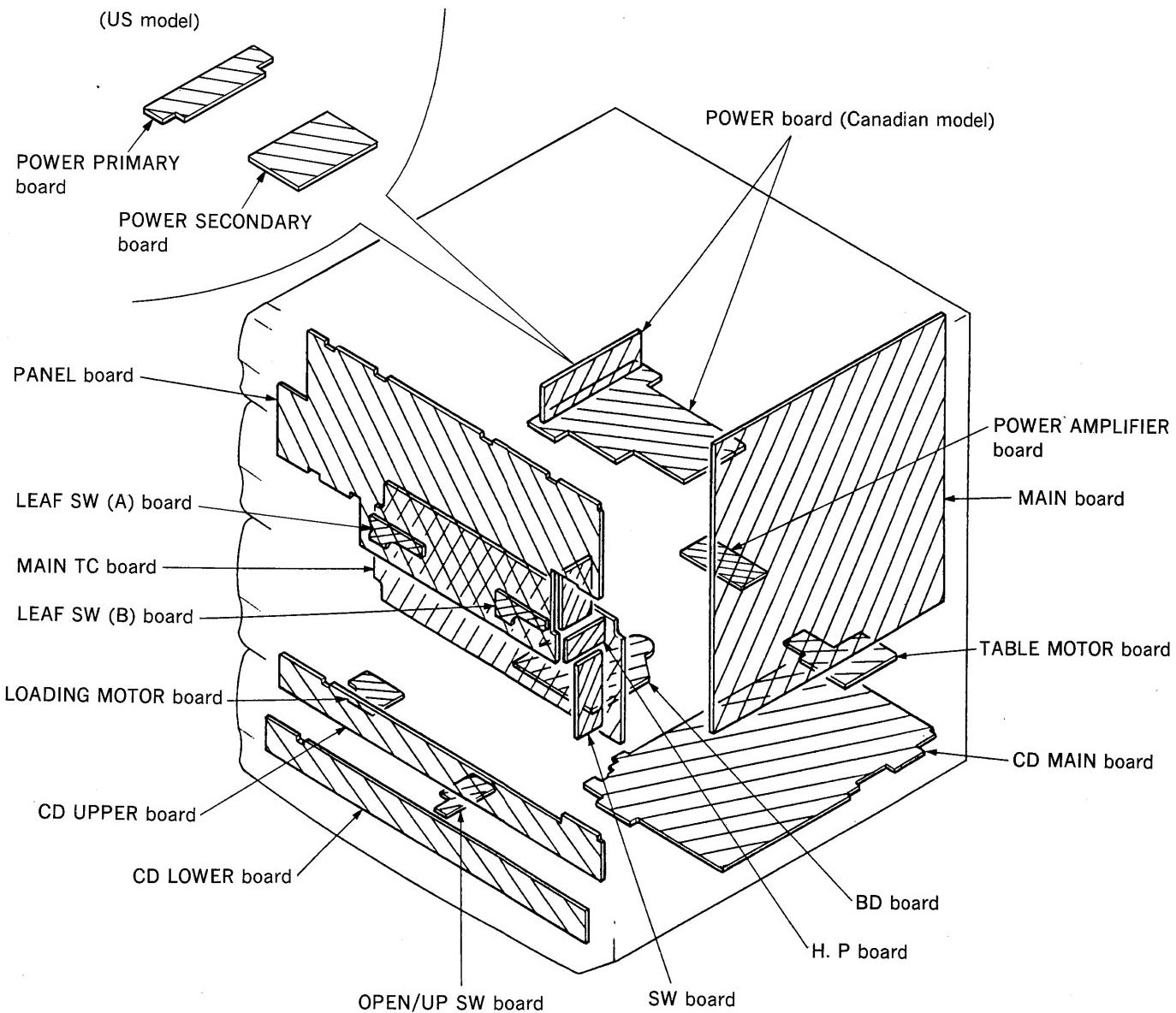
[CD MAIN BOARD]

—Component side—

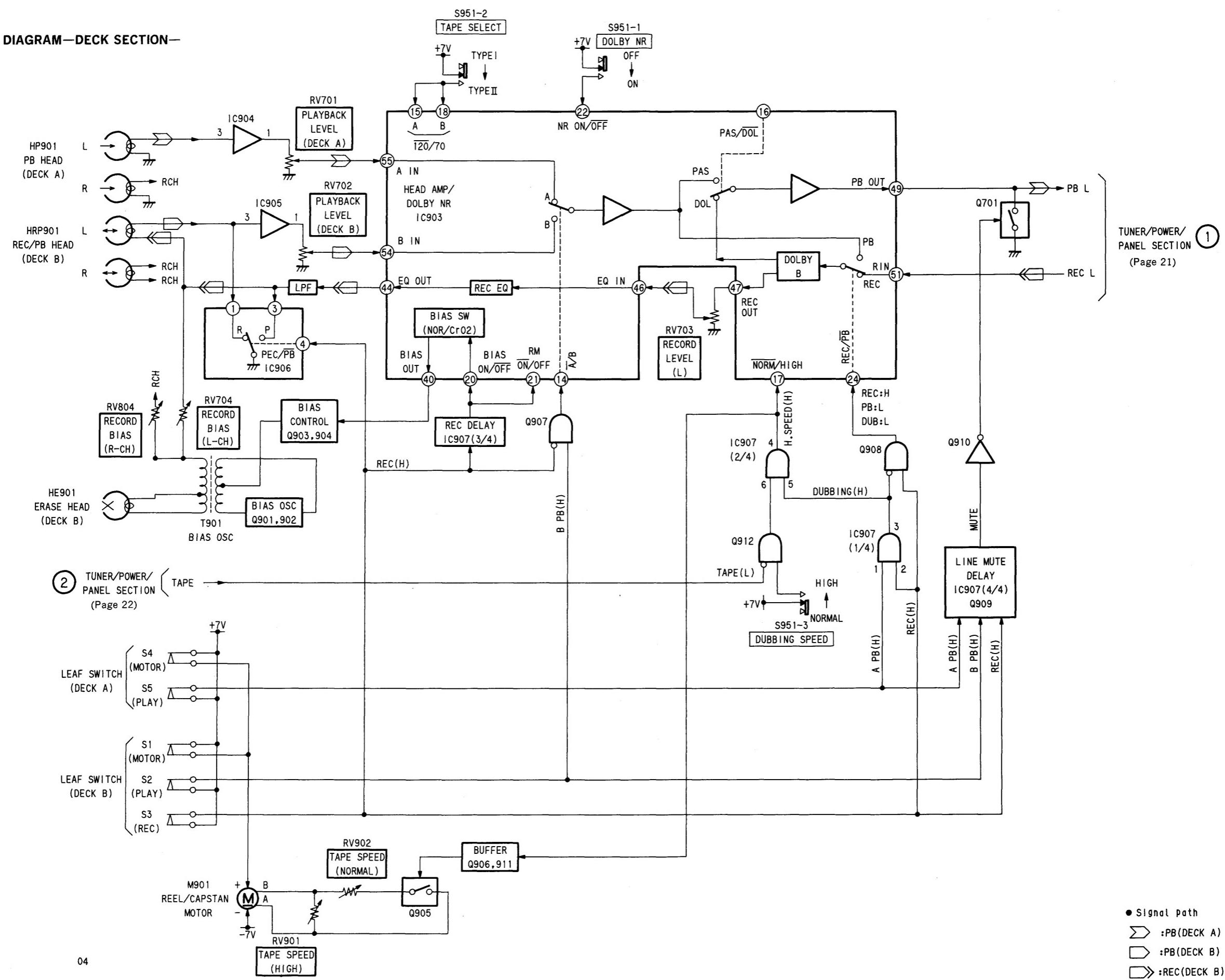


SECTION 5 DIAGRAM

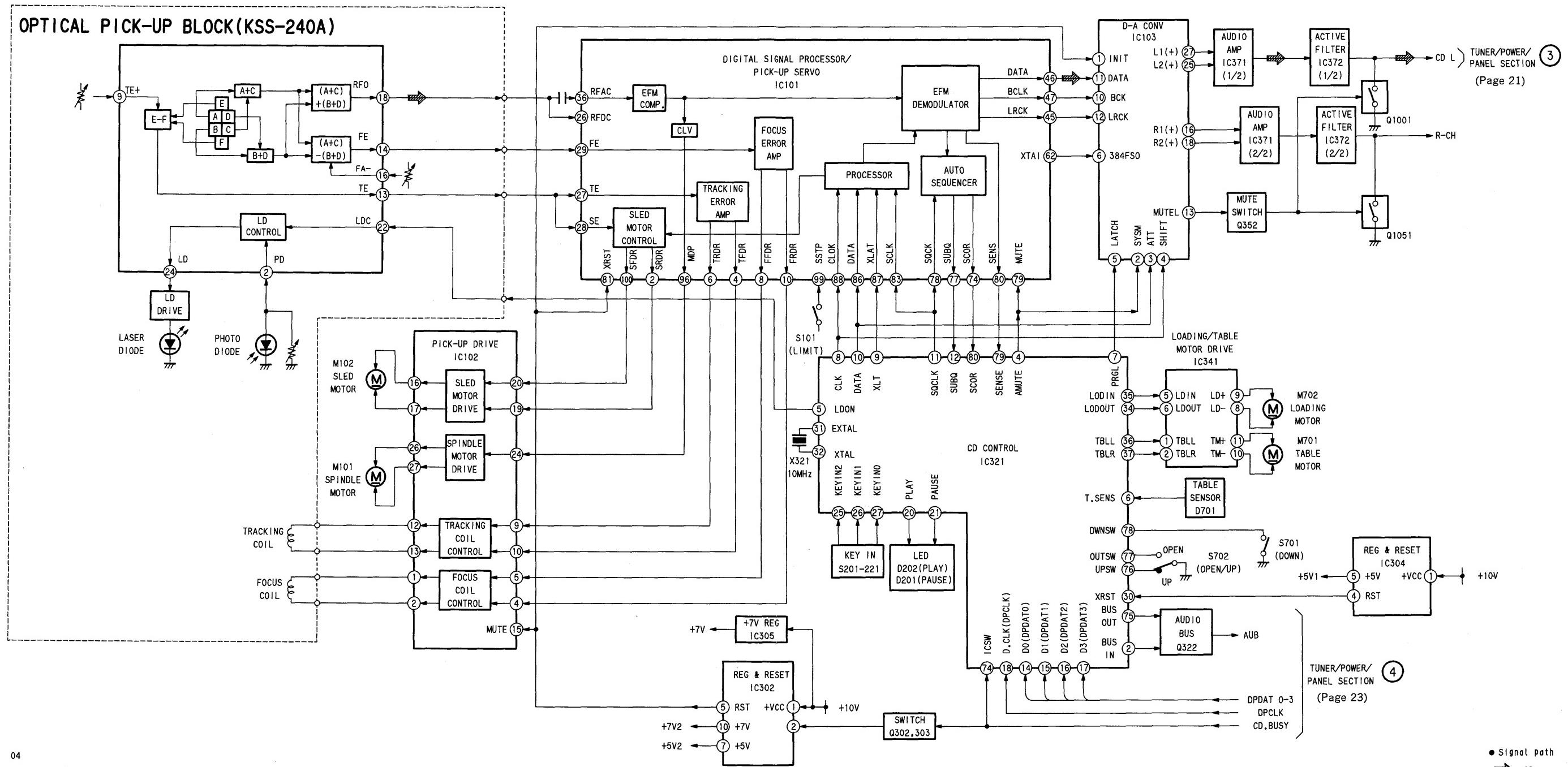
5-1. CIRCUIT BOARDS LOCATION



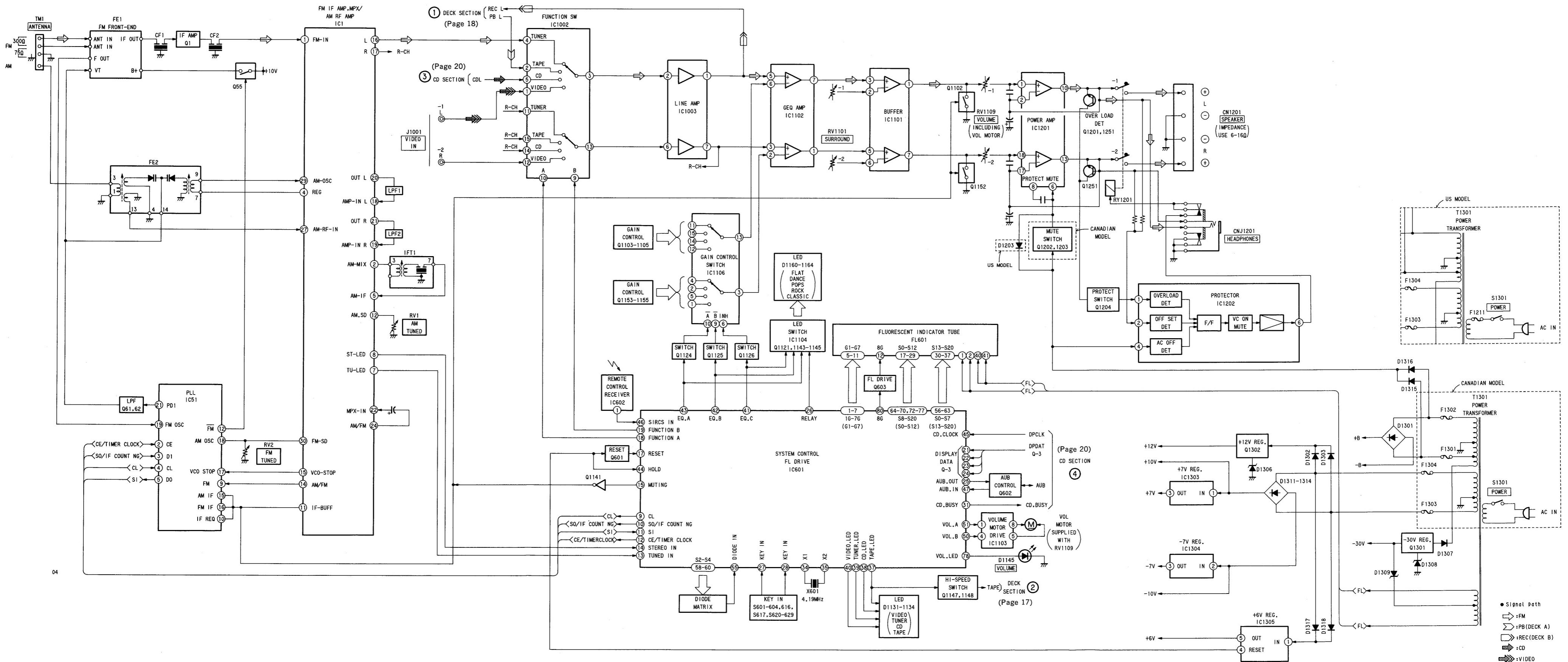
5-2. BLOCK DIAGRAM—DECK SECTION—



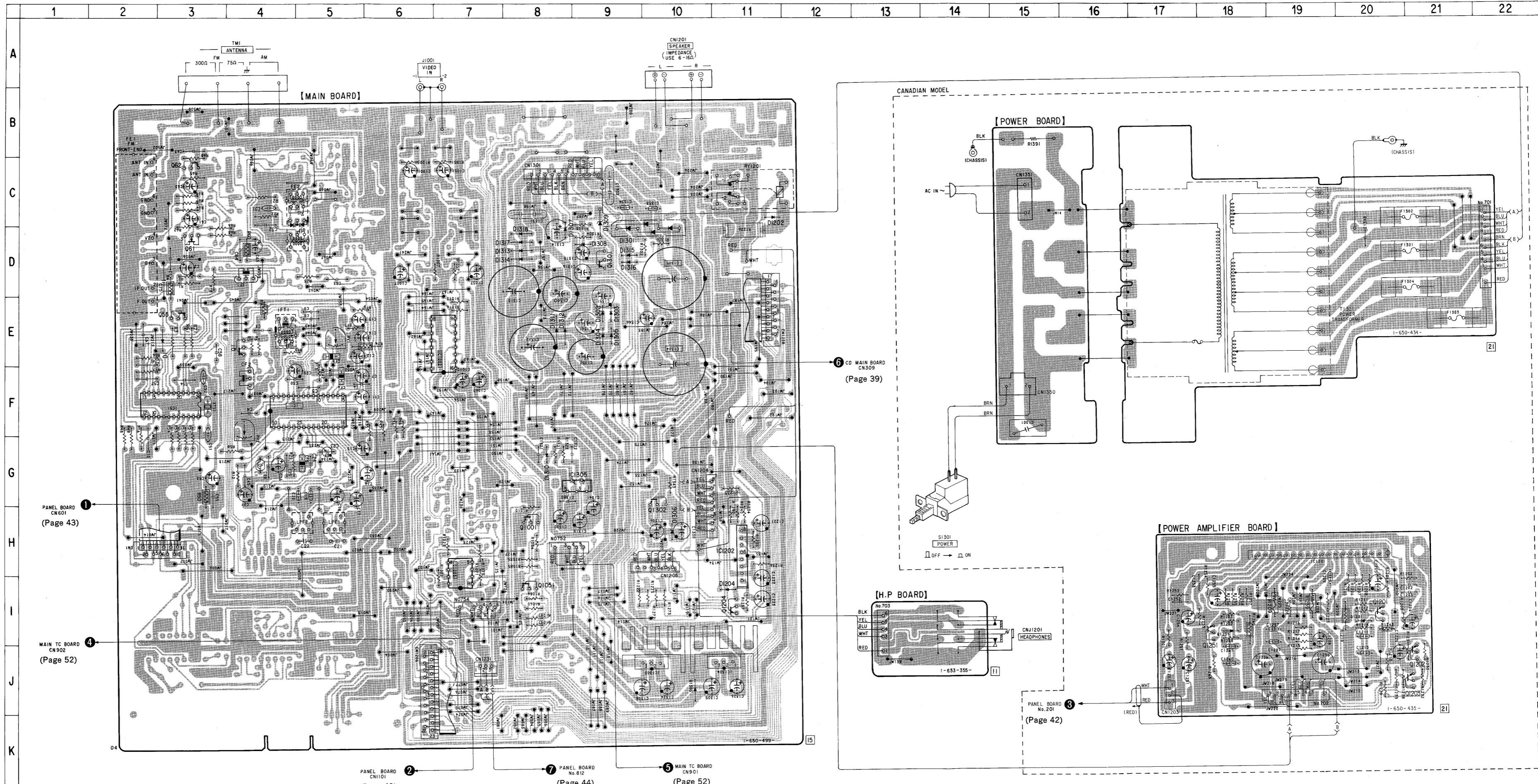
5-3. BLOCK DIAGRAM—CD SECTION—



5-4. BLOCK DIAGRAM—TUNER/POWER/PANEL SECTION—

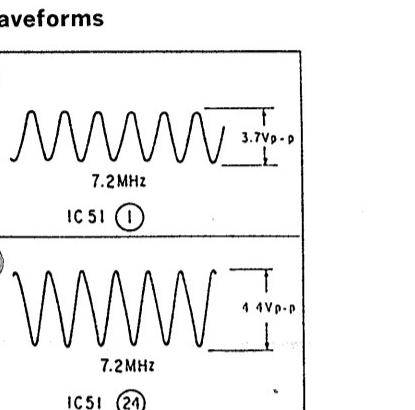


5-5. PRINTED WIRING BOARDS—TUNER/POWER SECTION • Refer to page 41 for Semiconductor Lead Layouts.

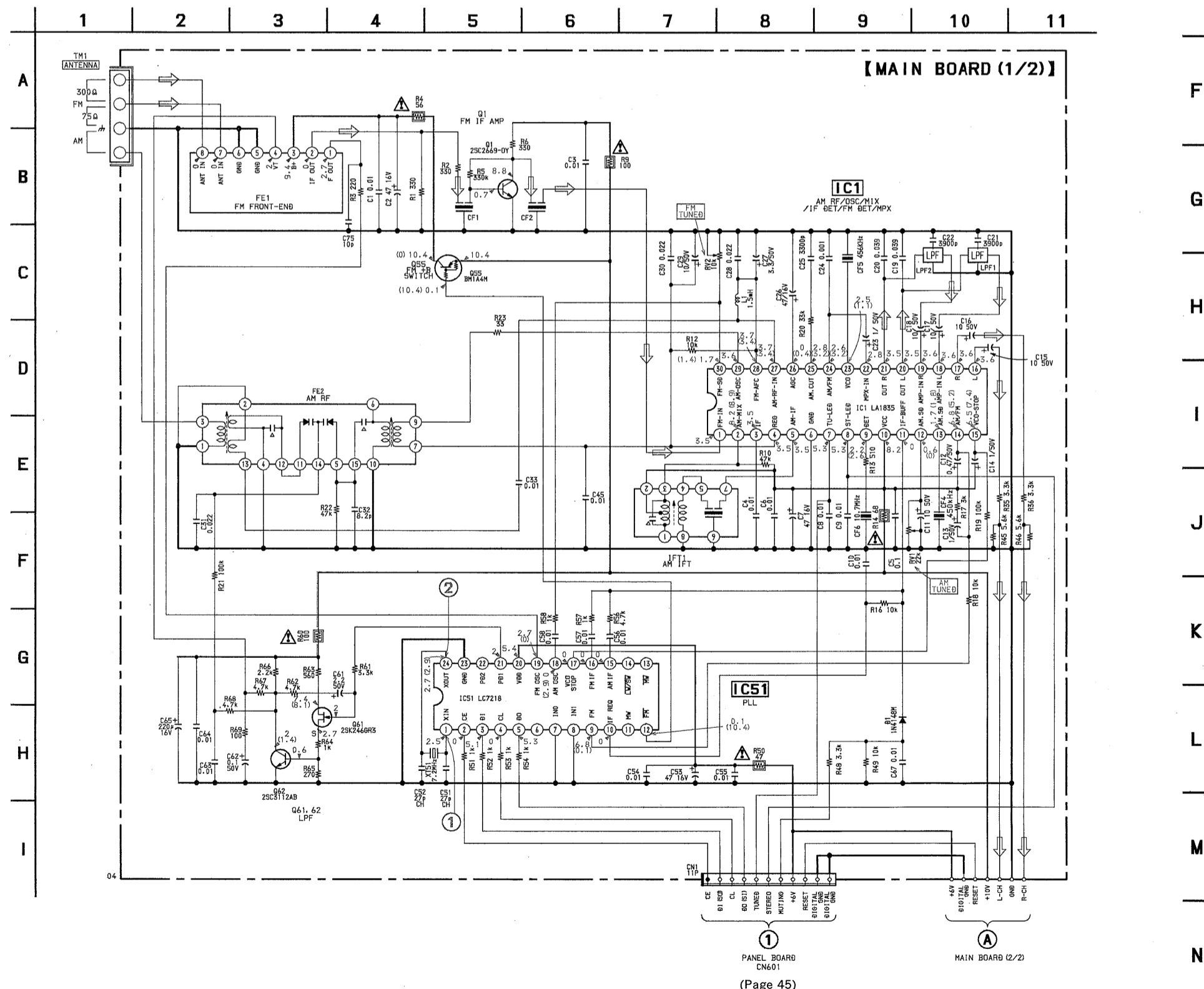


- Note :**
- All capacitors are in μF unless otherwise noted. pF : μF 50W or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and 1/4 W or less unless otherwise specified.
 - \triangle : internal component.

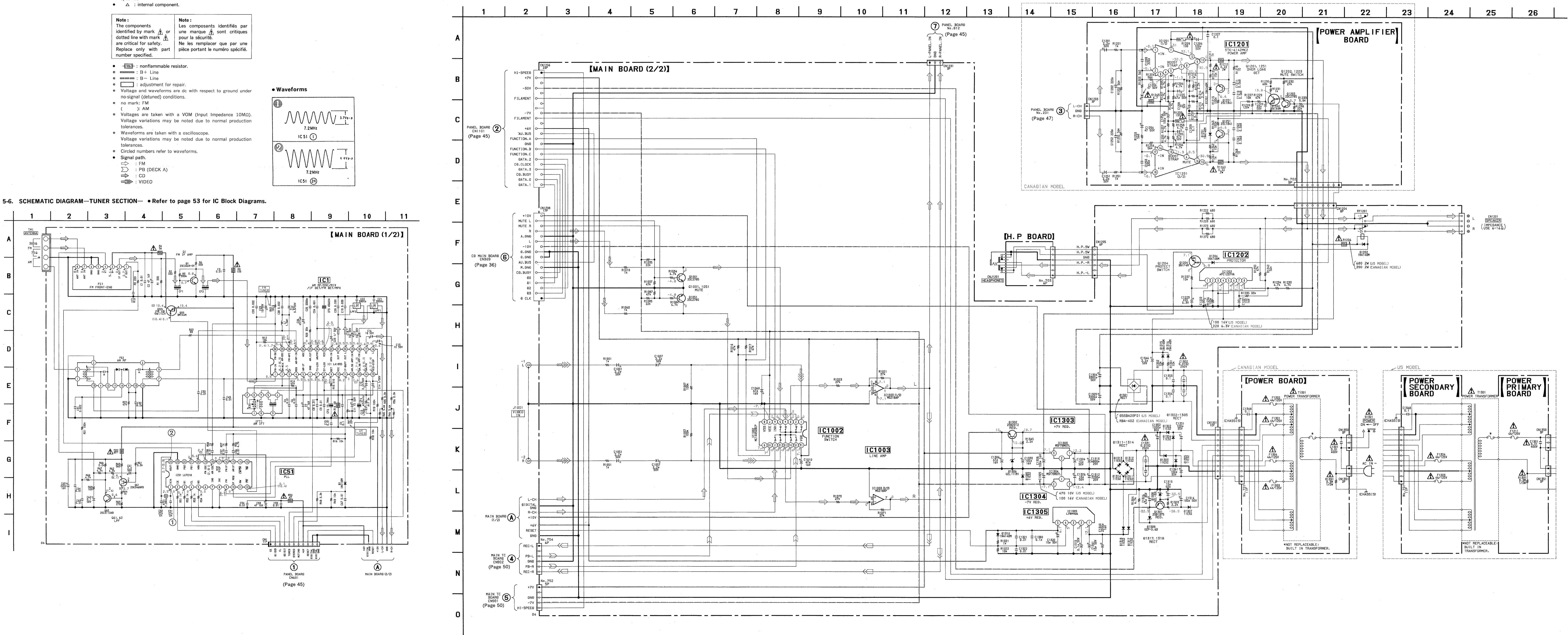
Note :
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

- Waveforms**
- 
- \square : nonflammable resistor.
 - \cdots : B+ Line
 - \cdots : B- Line
 - \square : adjustment for repair.
 - Voltage and waveforms are dc with respect to ground under no-signal (détenué) conditions.
 - no mark: FM
 - (\triangle): AM
 - Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
 - Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.
 - Signal path:
 - \rightarrow : FM
 - \rightarrow : PB (DECK A)
 - \rightarrow : CD
 - \rightarrow : VIDEO

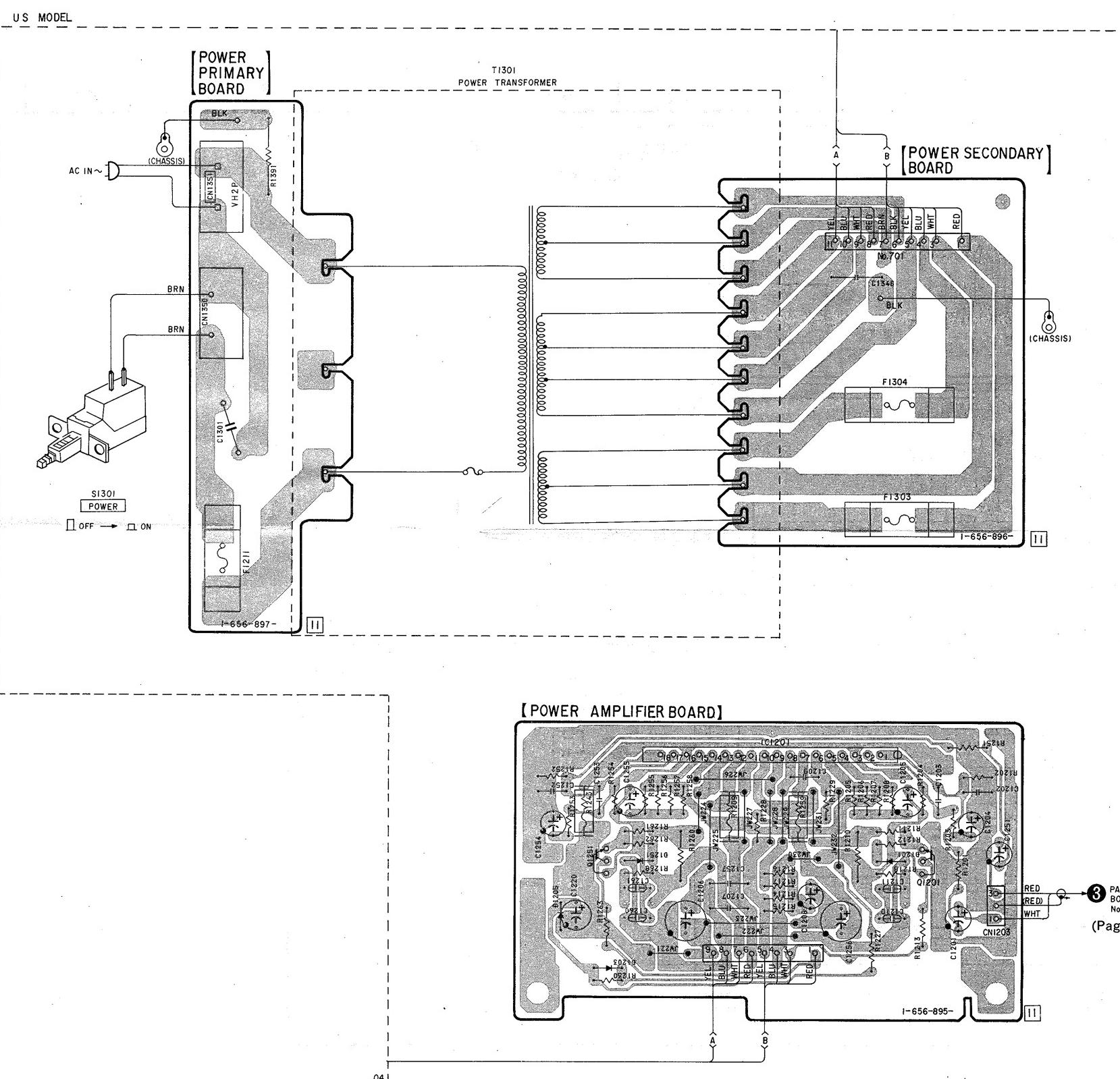
5-6. SCHEMATIC DIAGRAM—TUNER SECTION— • Refer to page 53 for IC Block Diagrams.



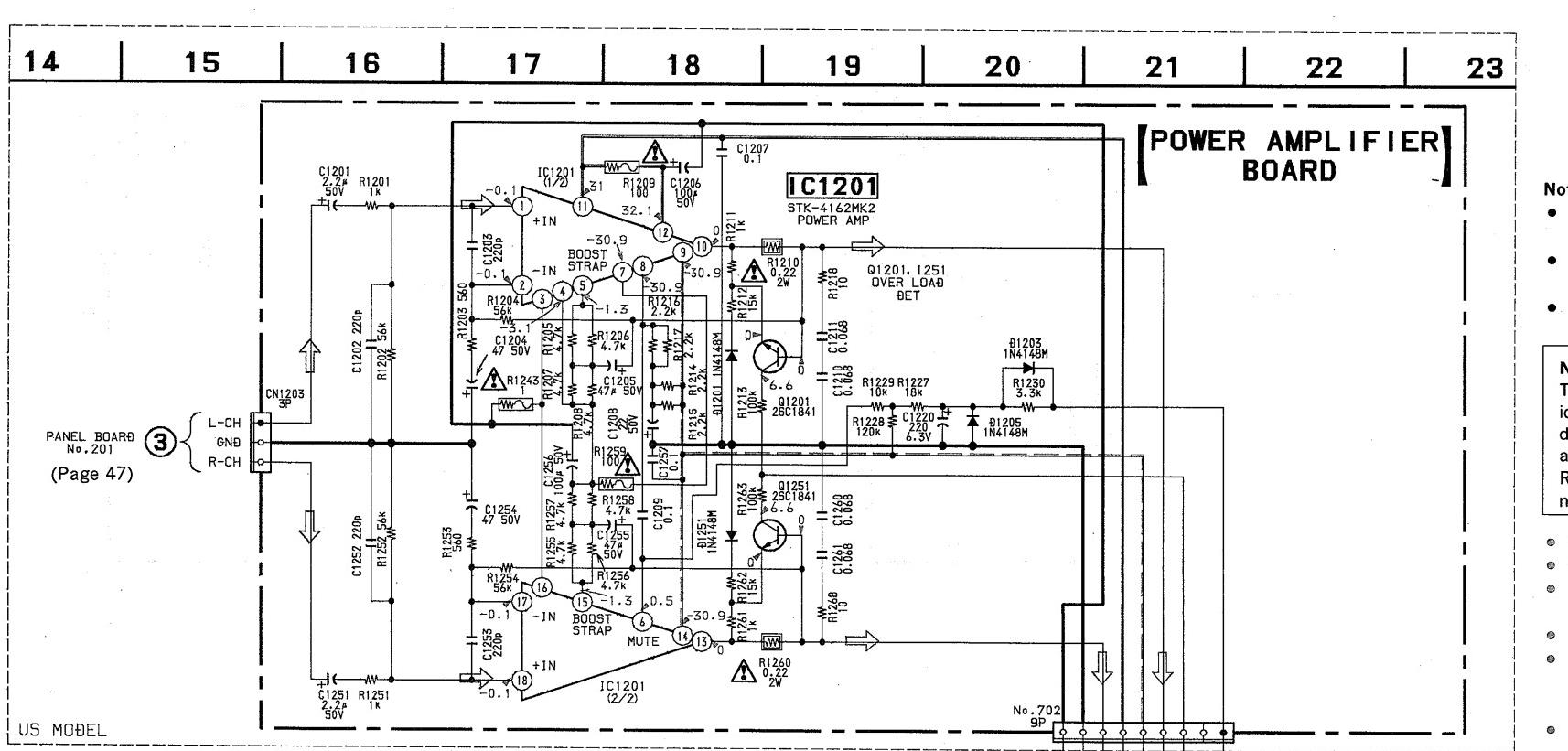
5-7. SCHEMATIC DIAGRAM—POWER SECTION— • Refer to page 53 for IC Block Diagrams.



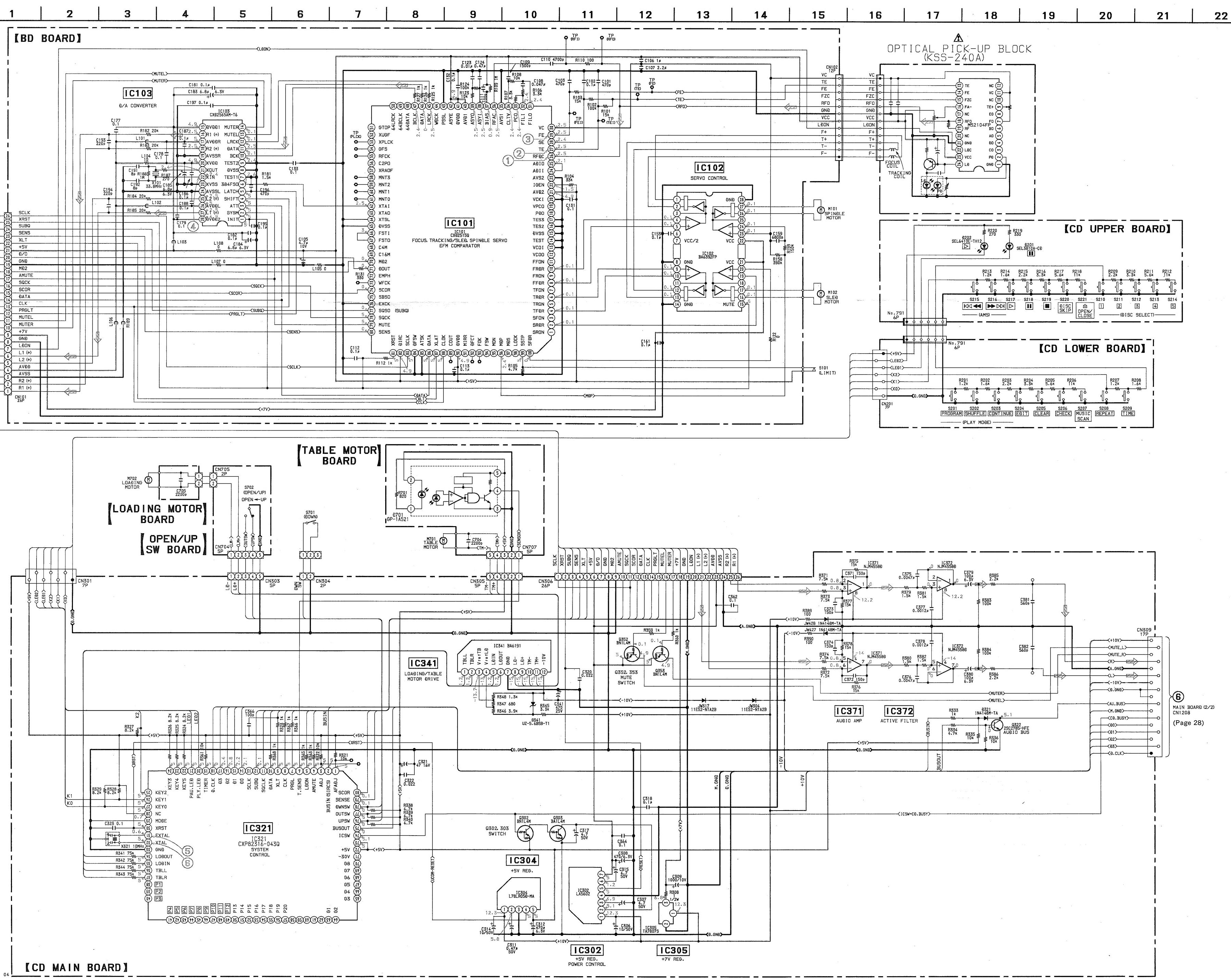
• PRINTED WIRING BOARDS—POWER SECTION—(US MODEL) (Refer to page 26 for PRINTED WIRING BOARDS.)



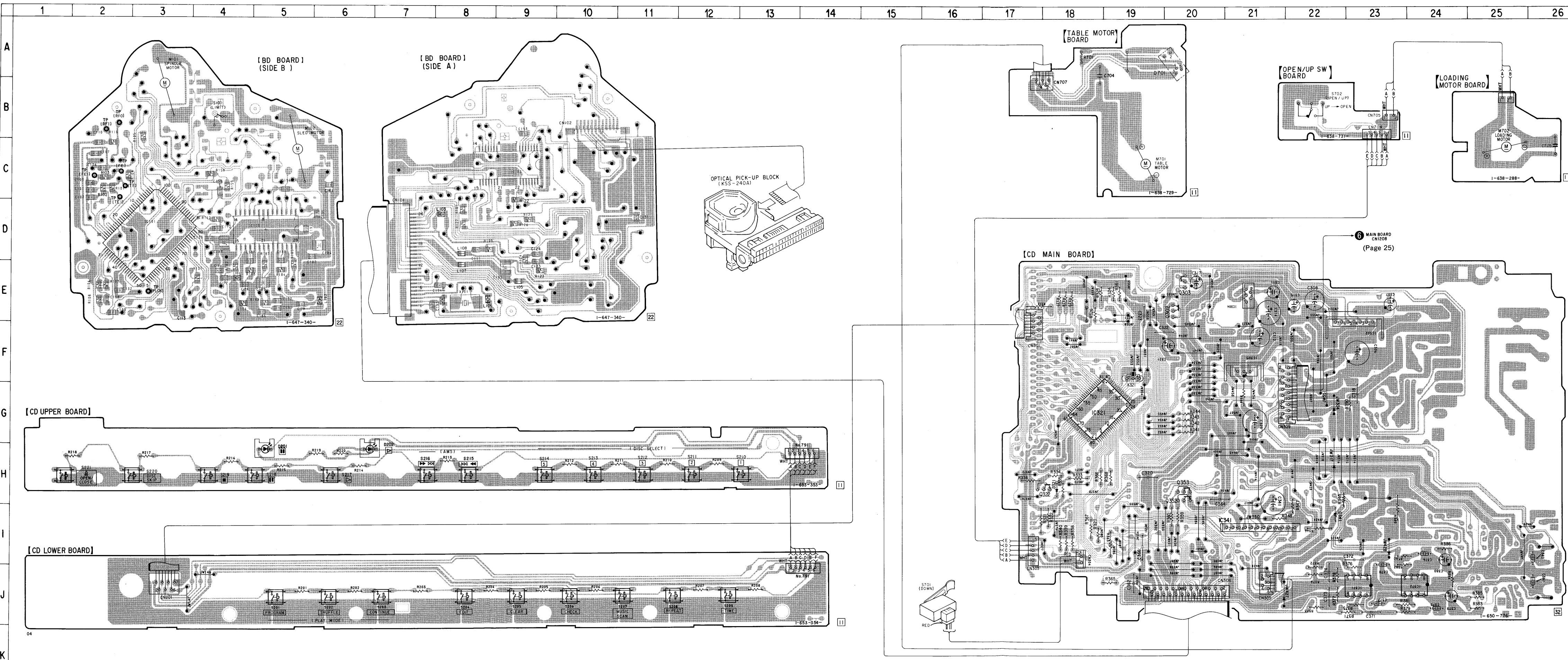
• SCHEMATIC DIAGRAM—POWER SECTION—(US MODEL) (Refer to page 30 for SCHEMATIC DIAGRAM.)



5-8. SCHEMATIC DIAGRAM—CD SECTION— • Refer to page 53 for IC Block Diagrams.



5-9. PRINTED WIRING BOARDS—CD SECTION— • Refer to page 41 for Semiconductor Lead Layouts.



• Semiconductor Location

Ref. No.

Location

Ref. No.	Location
D201	H-4
D202	H-6
D321	H-18
D341	I-22
D701	A-19
IC101	D-3
IC102	C-8
IC103	D-4
IC302	E-23
IC304	E-21
IC305	F-21
IC321	G-18
IC341	I-21
IC371	J-22
IC372	J-23
JW304	G-22
JW317	H-22
JW427	J-21
JW428	I-23
Q302	E-20
Q303	E-20
Q322	H-17
Q352	H-20
Q353	H-20

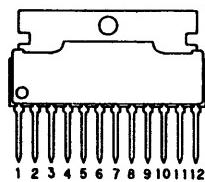
Note :

- : parts extracted from the component side.
- : Through hole.
- : Pattern on the side which is seen.
(The other layer's patterns are not indicated.)

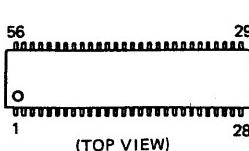
HCD-G3000

5-10. SEMICONDUCTOR LEAD LAYOUTS

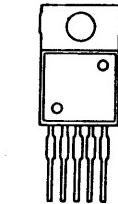
BA6191



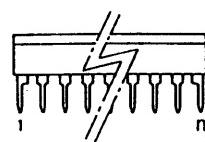
HA12172NT



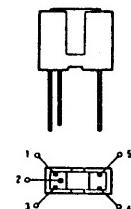
L78MR06



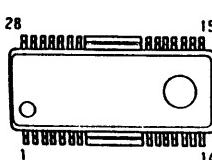
μ PC1330HA



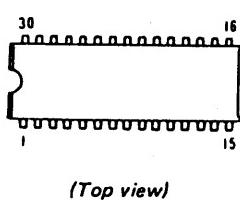
GP1A521



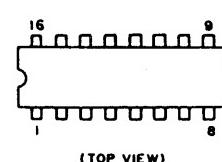
BA6392FP



LA1835



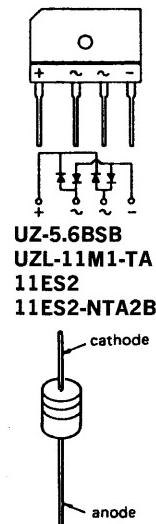
MC14052BCP



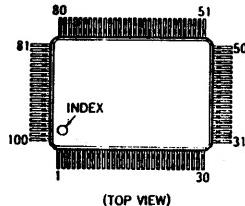
DTA124ES
DTA144ES
DTC114ES
DTC124ES
DTC144ES
2SC1841-PAFAEA
2SC2669-OY
2SC3622A-LK



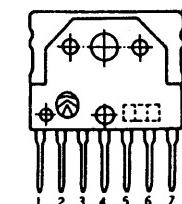
RBA-402



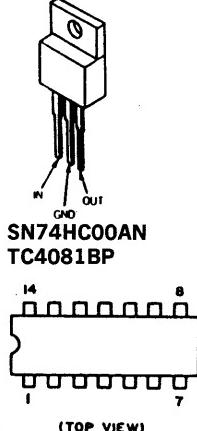
CXD2515Q



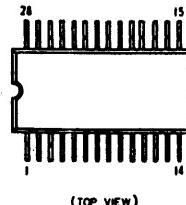
LA5602



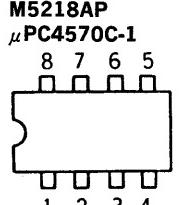
M5F78M07L
M5F79M07L
TA7807S



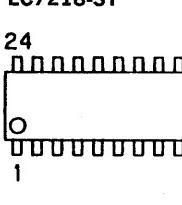
CXD2565AM-T6



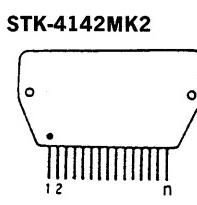
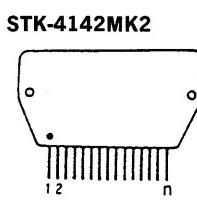
LB1639



M5218AP



μ PC4570C-1



CXP82316-043Q

μ PD78042AGF

-022-3B9

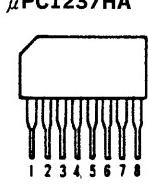
LC7218-ST



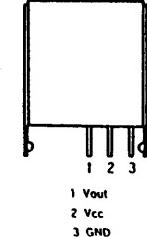
STK-4142MK2



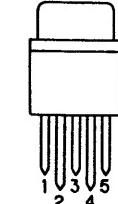
MARKING SIDE VIEW



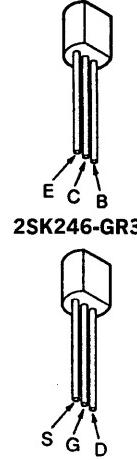
GP1U52XB



L78LR05D-MA



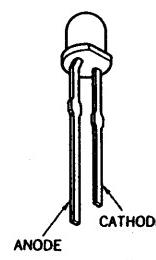
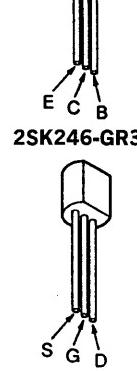
μ PC1237HA



2SC3112-B

2SC945-P

2SK246-GR3



SEL3810A-CD

SEL5220S-TH8C

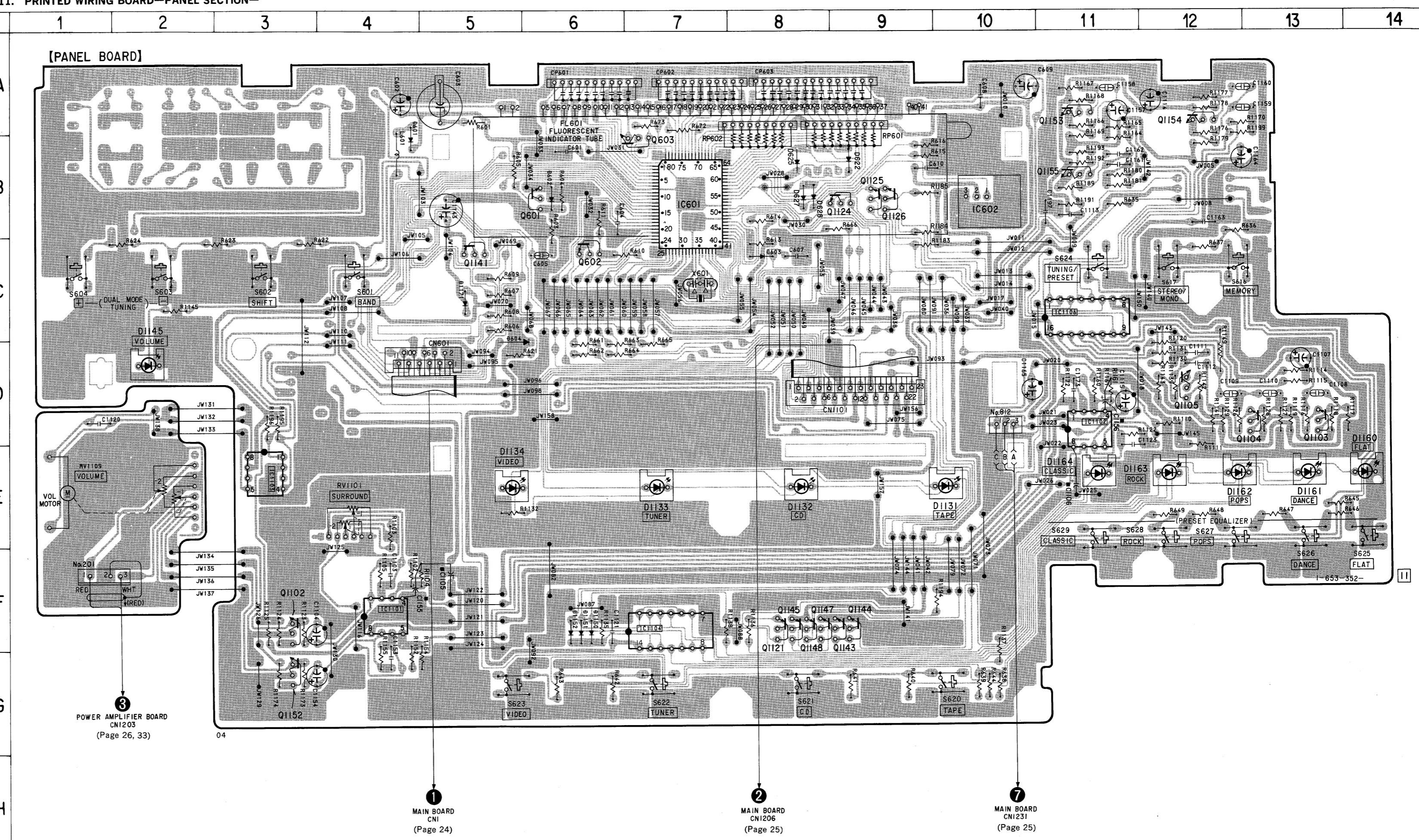
SEL6210S-TH12

SEL6410E-TH12

5-11. PRINTED WIRING BOARD—PANEL SECTION

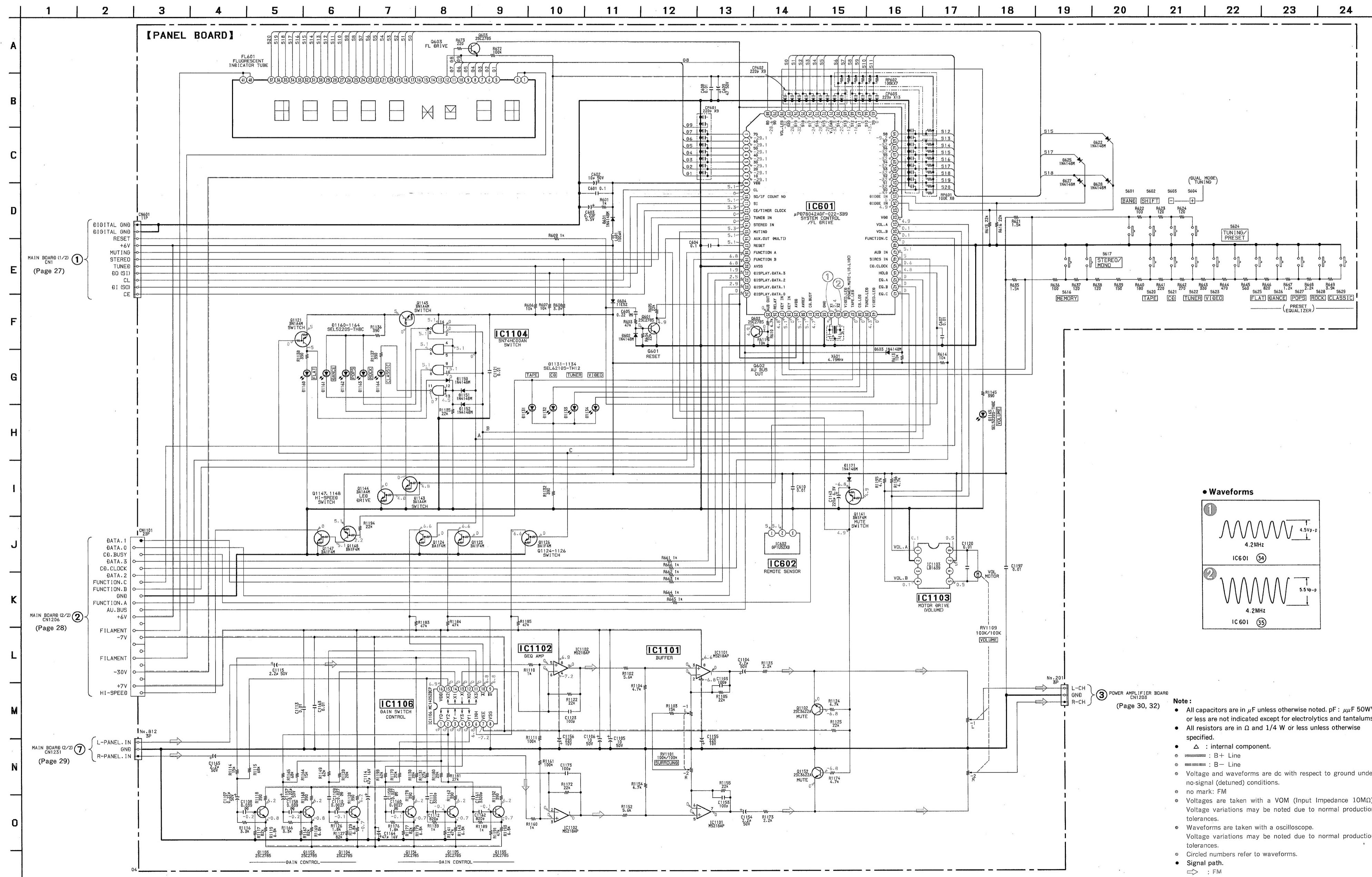
• Semiconductor Location

Ref. No.	Location
D601	A-4
D602	B-6
D603	C-8
D604	C-5
D622	B-9
D625	B-8
D627	B-8
D628	B-8
D1131	E-9
D1132	E-8
D1133	E-7
D1134	E-5
D1145	D-2
D1150	F-6
D1151	F-6
D1152	F-6
D1160	E-14
D1161	E-13
D1162	E-13
D1163	E-12
D1164	E-11
D1171	C-5
IC601	B-7
IC602	B-10
IC1101	F-4
IC1102	D-11
IC1103	E-3
IC1104	F-7
IC1106	C-11
Q601	B-5
Q602	C-6
Q603	B-7
Q1102	F-3
Q1103	D-13
Q1104	D-13
Q1105	D-12
Q1121	F-8
Q1124	B-9
Q1125	B-9
Q1126	B-9
Q1141	C-5
Q1143	F-9
Q1144	F-9
Q1145	F-8
Q1147	F-8
Q1148	F-8
Q1152	G-3
Q1153	A-11
Q1154	A-12
Q1155	B-11

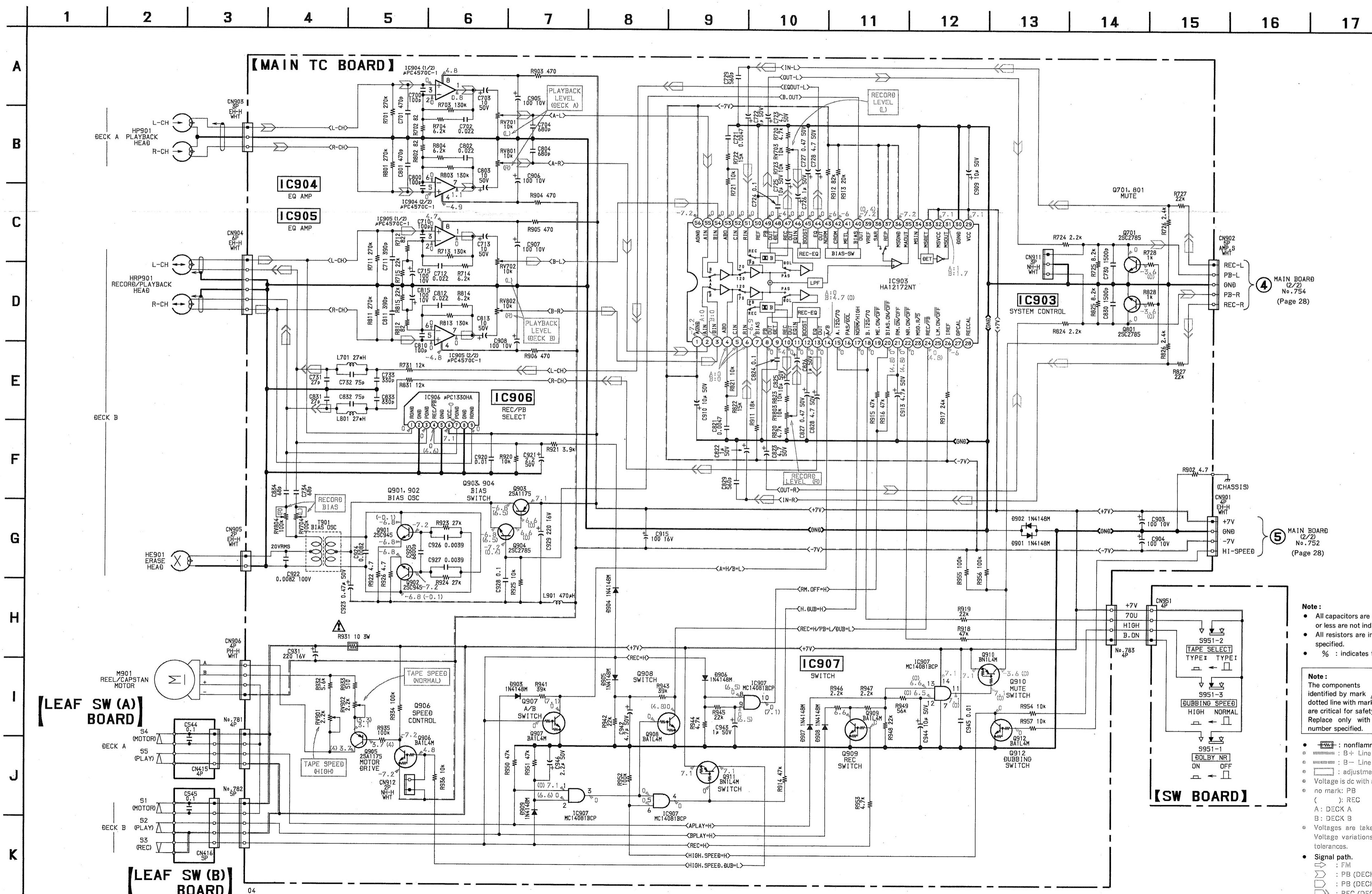


Note :
 • ○ : parts extracted from the component side.
 • ■ : Pattern on the side which is seen.

5-12. SCHEMATIC DIAGRAM—PANEL SECTION • Refer to page 53 for IC Block Diagrams.



5-13. SCHEMATIC DIAGRAM—DECK SECTION— • Refer to page 53 for IC Block Diagrams.



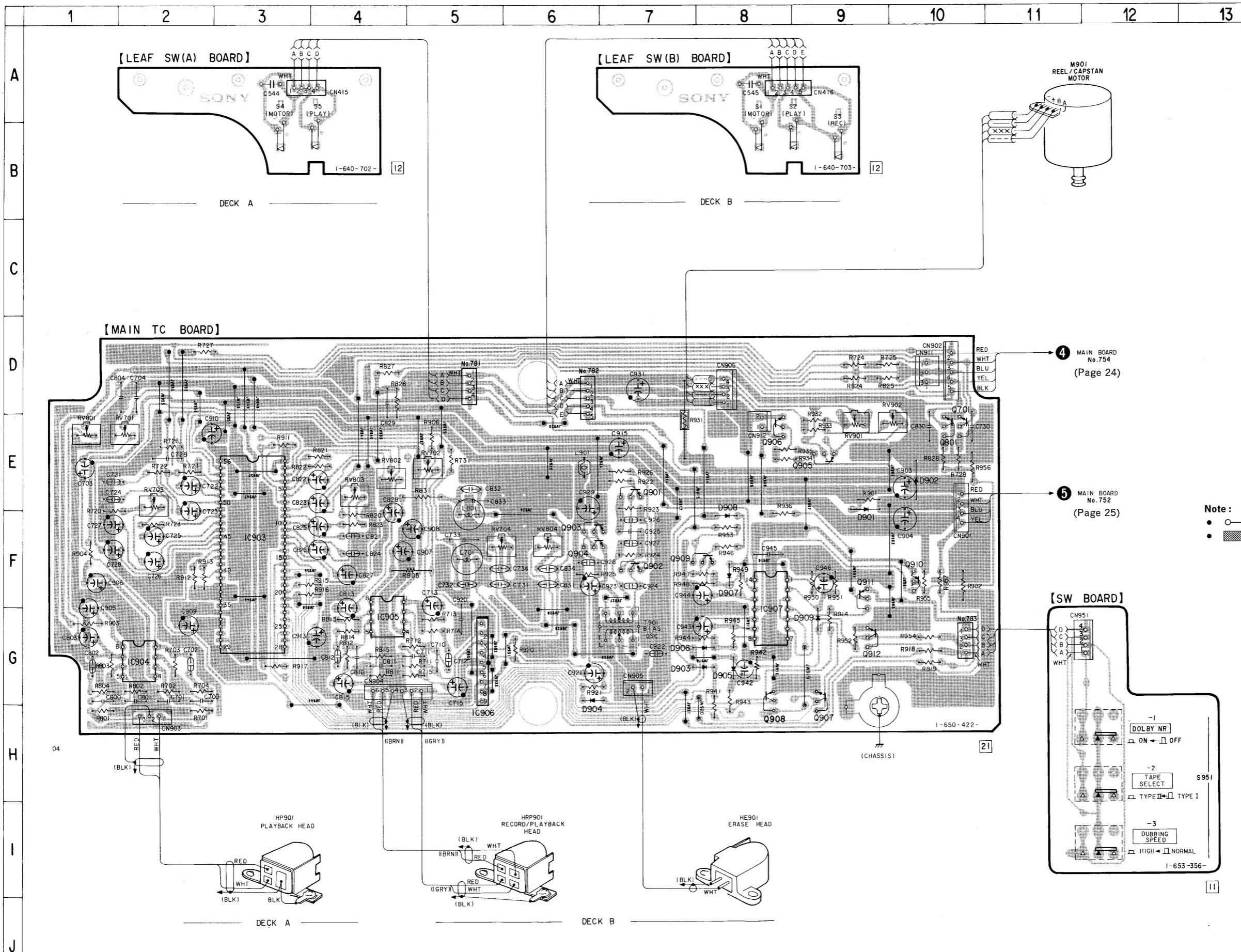
Note:
 • All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and 1/4 W or less unless otherwise specified.
 • % : indicates tolerance.

Note:
 The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Note:
 Les composants identifiés par une marque \triangle ou pointillée avec une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

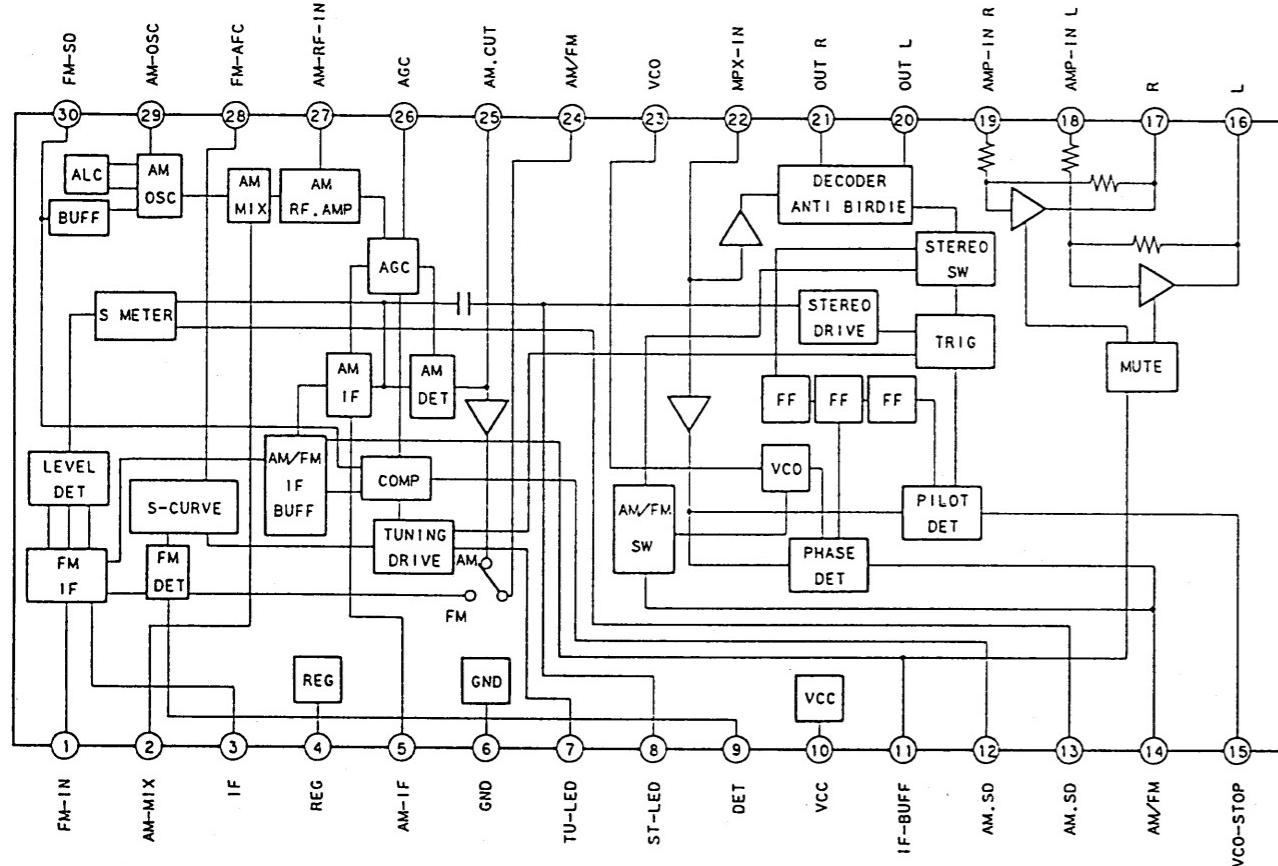
- W— : nonflammable resistor.
- B+— : B+ Line
- B— : B- Line
- W— : adjustment for repair.
- o— : Voltage is dc with respect to ground under no-signal conditions.
- no mark: PB
 () : REC
- A: DECK A
 B: DECK B
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path:
 → : FM
 ↗ : PB (DECK A)
 ↘ : PB (DECK B)
 ⇝ : REC (DECK B)

5-14. PRINTED WIRING BOARDS—DECK SECTION— • Refer to page 41 for Semiconductor Lead Layouts.

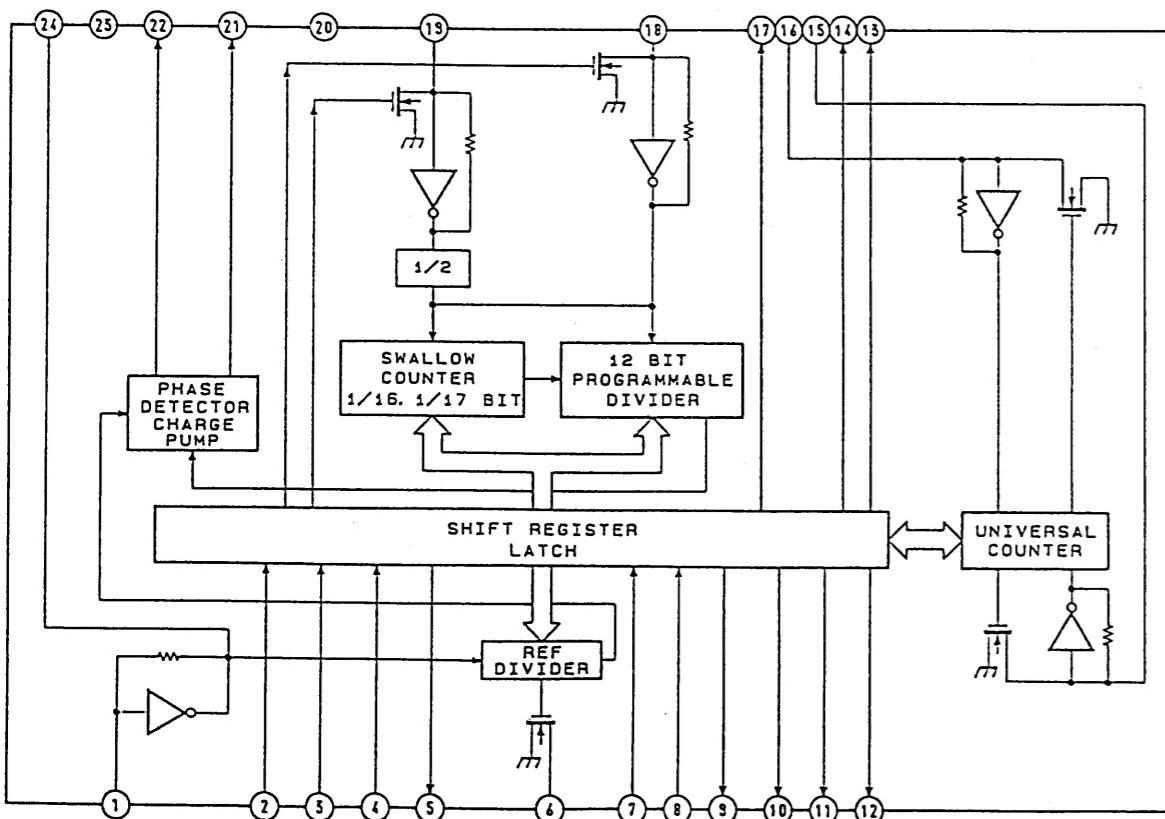


• IC Block Diagrams

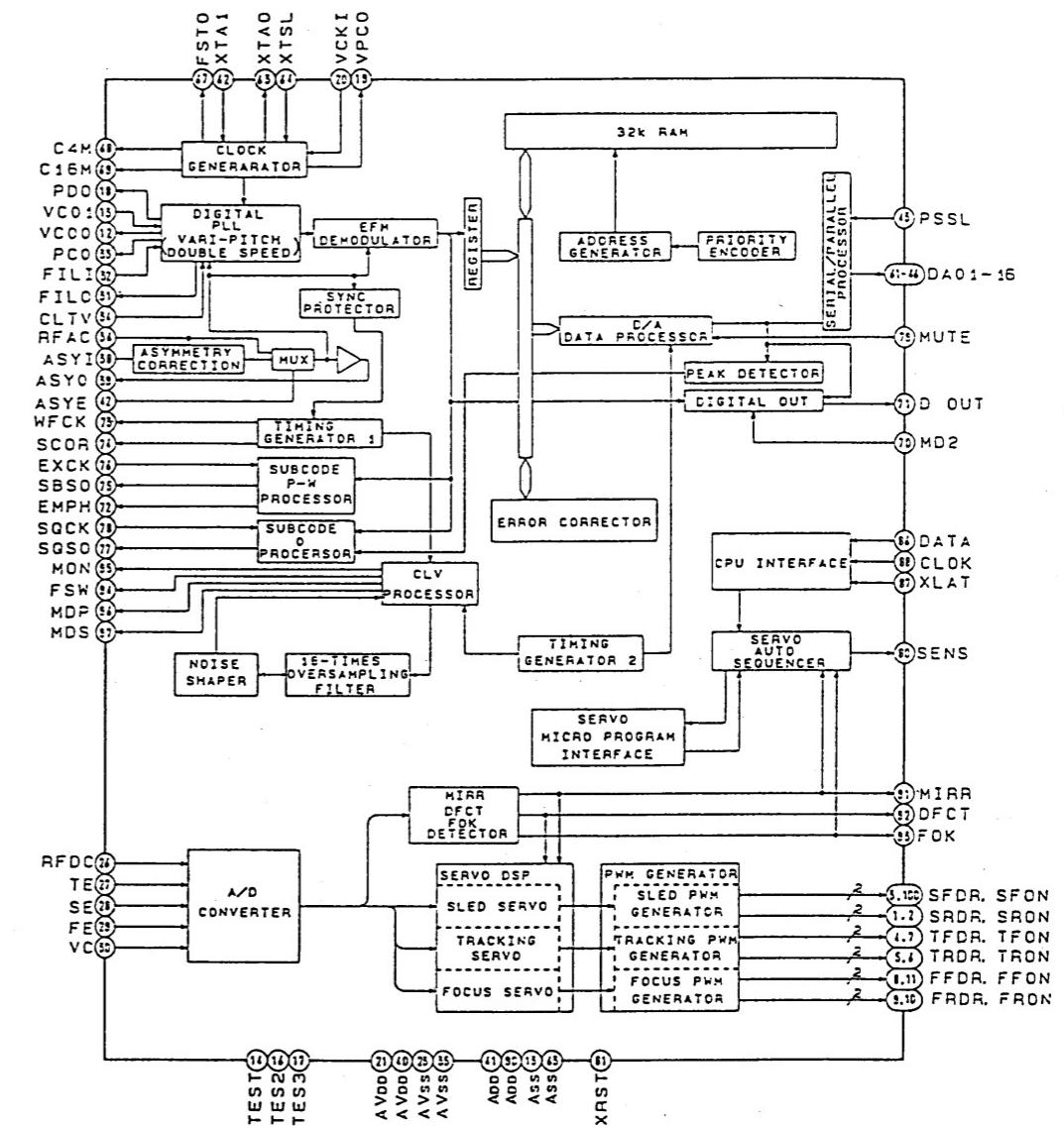
IC1 LA1835



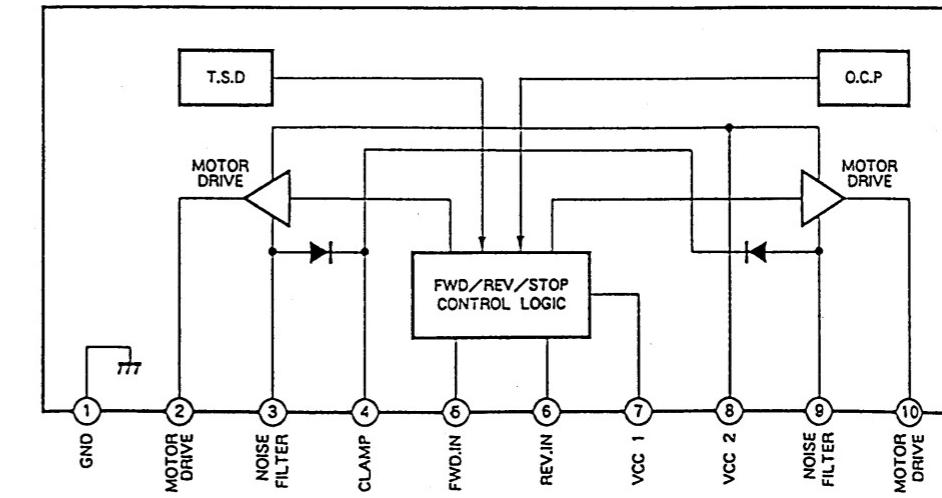
IC51 LC7218

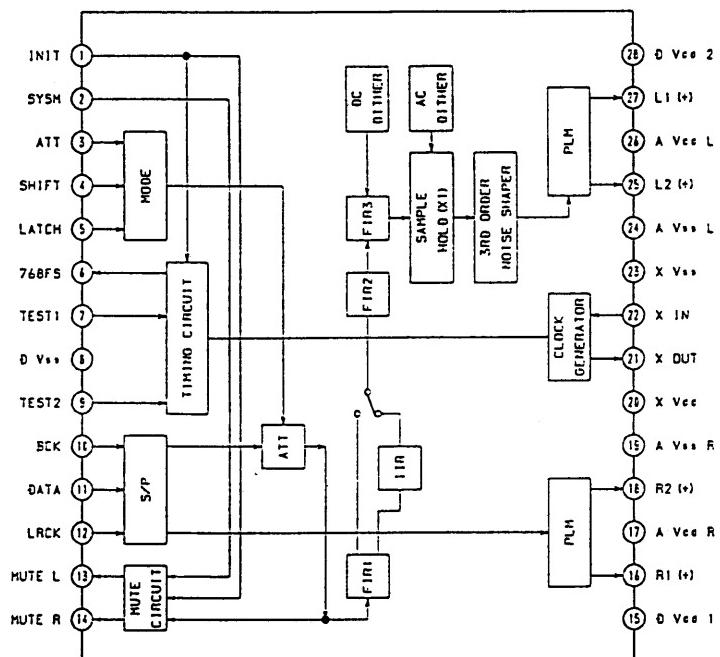
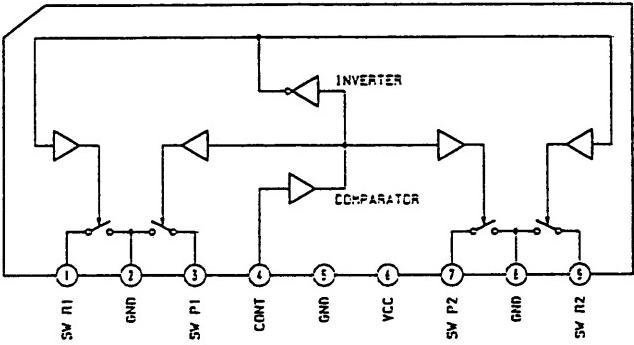
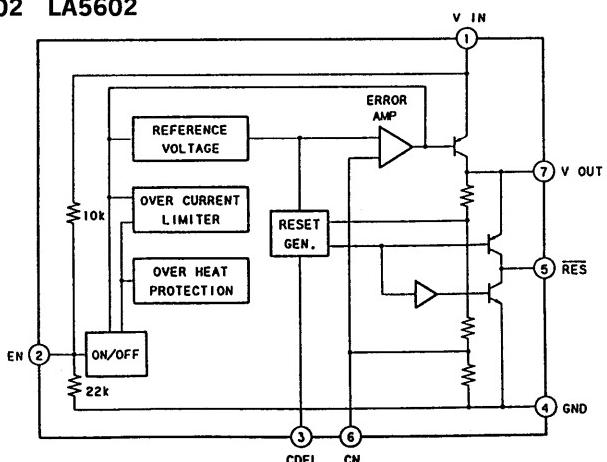
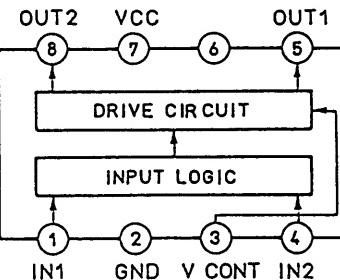
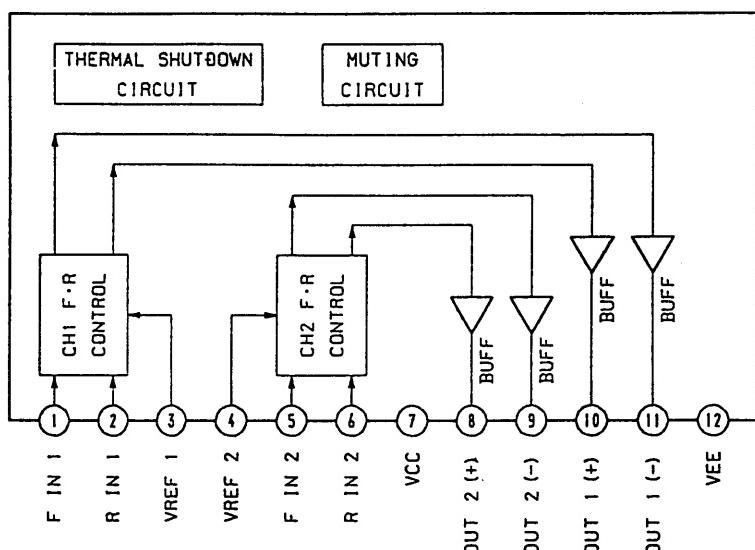


IC101 CXD2515Q

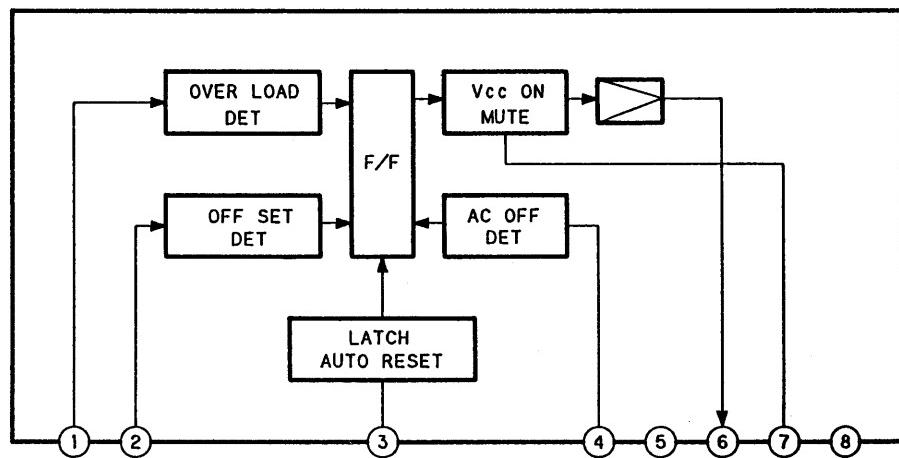


IC304 L78LR05
IC1305 L78MR06

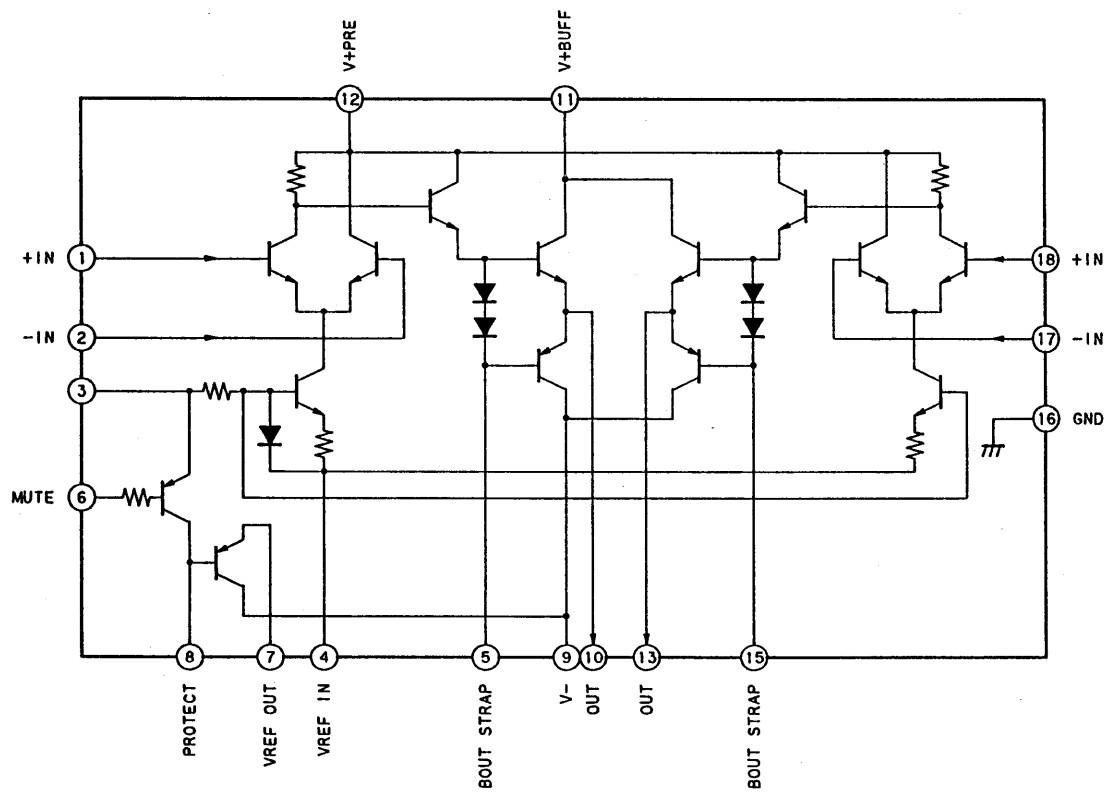


IC103 CXD2565AM-T6**IC906 μ PC1330HA****IC302 LA5602****IC1103 LB1639****IC341 BA6191**

IC1202 μ PC1237HA



IC1201 STK-4142MK2



5-15. PIN DESCRIPTION

• IC601 μ PD78042AGF-022-3B9

Pin No.	Pin Name	I/O	Pin Description
1	7G	O	FL tube digit output
2	6G	O	FL tube digit output
3	5G	O	FL tube digit output
4	4G	O	FL tube digit output
5	3G	O	FL tube digit output
6	2G	O	FL tube digit output
7	1G	O	FL tube digit output
8	VDD	—	Microcomputer power (5V)
9	CL	O	Serial clock output to LC7218 (PLL IC).
10	SO/IF COUNT NG	O	Serial data output to LC7218 (PLL IC).
11	SI	I	Serial data input from LC7218 (PLL IC).
12	CE/TIMER CLOCK	I	Chip enable input from LC7218 (PLL IC).
13	TUNED IN	I	Modulation signal from tuner block. (L...Field)
14	STEREO IN	I	Stereo signal from tuner block. (L...FM STEREO received)
15	MUTING	O	Audio mute (L : Mute)
16	AUX. OUT	—	Not used.
17	RESET	—	Microcomputer reset pin
18	FUNCTION A	O	Function control
19	FUNCTION B	O	Function control
20	AVSS	—	A/D GND for key input.
21	DISPLAY. DATA. 3	I	CD display data bit 3
22	DISPLAY. DATA. 2	I	CD display data bit 2
23	DISPLAY. DATA. 1	I	CD display data bit 1
24	DISPLAY. DATA. 0	I	CD display data bit 0
25	AUB. OUT	O	AU BUS output
26	RELAY	—	Not used.
27	KEY IN1	I	Key input (A/D change line 1)
28	KEY IN0	I	Key input (A/D change line 0)
29	AVDD	—	A/D power for key input (5V)
30	AVREF	—	A/D reference voltage (5V)
31	CD. BUSY	I	At H, CD is Active. (At H, tuner is fundamentally not operated.)
32	—	—	Not used.
33	GND	—	Microcomputer GND
34	X1	—	Crystal connection pin for Main-clock oscillator.
35	X2	—	Crystal connection pin for Main-clock oscillator.
36	POWER. MUTE	—	Not used.
37	TAPE. LED	O	Tape function LED
38	CD. LED	O	CD function LED
39	TUNER. LED	O	Tuner function LED
40	VIDEO. LED	O	Video function LED
41	EQ. C	O	Preset•equalizer control
42	EQ. B	O	Preset•equalizer control
43	EQ. A	O	Preset•equalizer control
44	HOLD	I	Power cut detection pin (Normally : H, AC no connect : L)

Pin No.	Pin Name	I/O	Pin Description
45	CD. CLOCK	I	CD display data clock
46	SIRCS IN	I	SIRCS input
47	AUB. IN	I	AU BUS input
48	—	—	Connect to GND.
49	FUNCTION. C	—	Not used.
50	VOL. B	O	Volume control (VOL DOWN)
51	VOL. A	O	Volume control (VOL UP)
52	VDD	—	Microcomputer power (5V)
53	—	—	Not used.
54	DIODE. IN2	—	Not used.
55	DIODE. IN1	I	Distination•model discrimination input
56	S0	O	FL tube segment output
57	S1	O	FL tube segment output
58	S2	O	Distination•model discrimination output
59	S3	O	Distination•model discrimination output
60	S4	O	FL tube segment output
61	S5	O	Distination•model discrimination output
62	S6	O	FL tube segment output
63	S7	O	FL tube segment output
64	S8	O	FL tube segment output
65	S9	O	FL tube segment output
66	S10	O	FL tube segment output
67	S11	O	FL tube segment output
68	S12	O	FL tube segment output
69	S13	O	FL tube segment output
70	S14	O	FL tube segment output
71	V. LOAD	—	Minus voltage for FL tube.
72	S15	O	FL tube segment output
73	S16	O	FL tube segment output
74	S17	O	FL tube segment output
75	S18	O	FL tube segment output
76	S19	O	FL tube segment output
77	S20	O	FL tube segment output
78	VOL. LED	O	Volume LED output
79	9G	—	Not used.
80	8G	O	FL tube digit output

SECTION 6 EXPLODED VIEWS

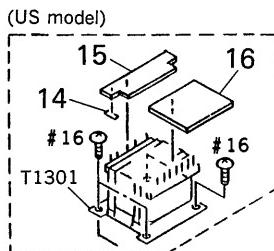
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

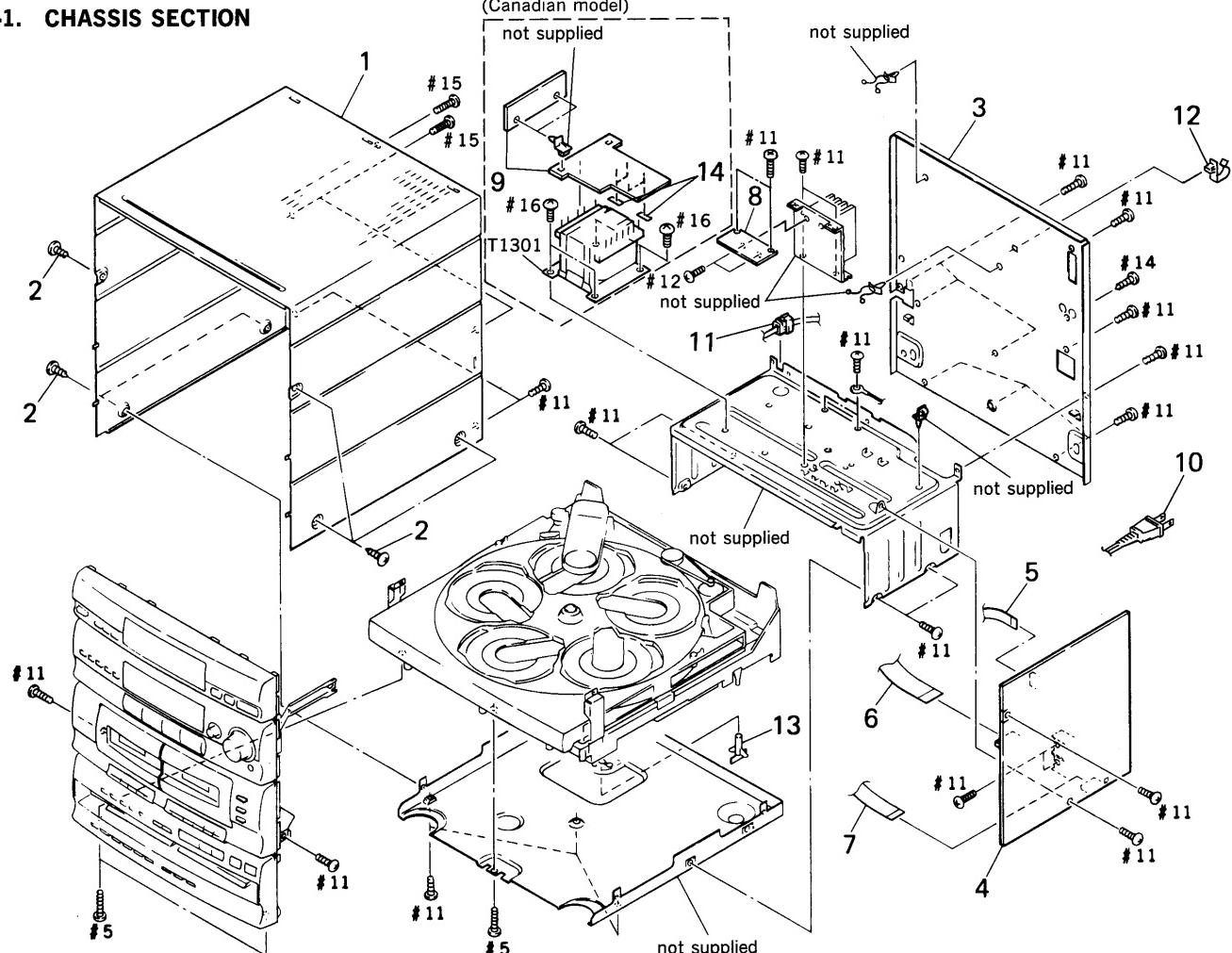
- -XX and -X mean standardized parts, so they may have some difference from the original one.

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



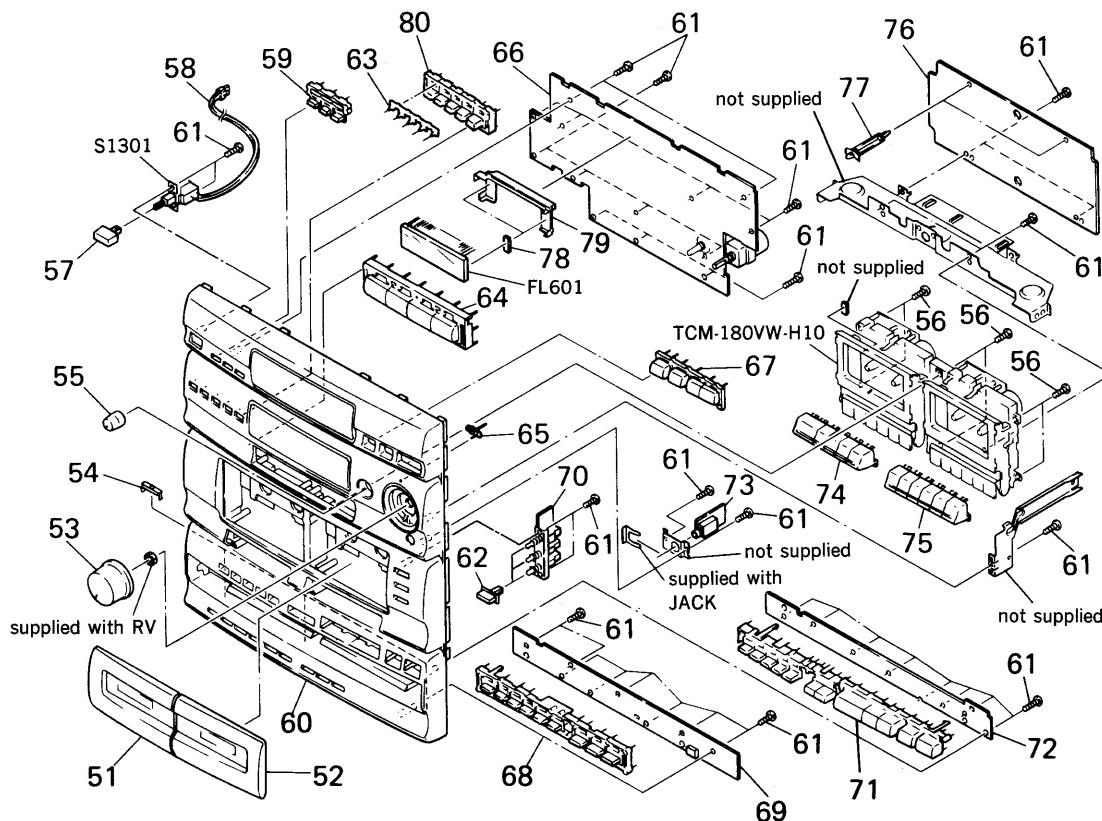
(Canadian model)



Ref. No.	Part No.	Description	Remark
1	4-965-091-31	CASE (CDM)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
* 3	4-965-093-71	PANEL, BACK (US)	
* 3	4-965-093-81	PANEL, BACK (Canadian)	
* 4	A-4377-049-A	MAIN BOARD, COMPLETE (Canadian)	
* 4	A-4377-805-A	MAIN BOARD, COMPLETE (US)	
5	1-751-026-11	WIRE (FLAT TYPE) (11 CORE)	
6	1-751-747-11	WIRE (FLAT TYPE) (23 CORE)	
7	1-765-234-11	CORD, CONNECTION (17 CORE)	
* 8	A-4371-530-A	POWER AMPLIFIER BOARD, COMPLETE (Canadian)	
* 8	A-4377-807-A	POWER AMPLIFIER BOARD, COMPLETE (US)	

Ref. No.	Part No.	Description	Remark
* 9	1-650-434-21	POWER BOARD (Canadian)	
\triangle 10	1-690-609-21	CORD, POWER	
* 11	3-703-244-00	BUSHING (2104), CORD	
* 12	4-949-235-01	HOOK	
13	4-937-945-01	PLATE (TRANSPORT), LOCK	
* 14	3-701-946-26	LABEL, FUSE RATING	
* 15	1-656-897-11	POWER PRIMARY BOARD (US)	
* 16	1-656-896-11	POWER SECONDARY BOARD (US)	
\triangle T1301	1-427-731-11	TRANSFORMER, POWER (Canadian)	
\triangle T1301	1-427-926-11	TRANSFORMER, POWER (US)	

6-2. FRONT PANEL SECTION



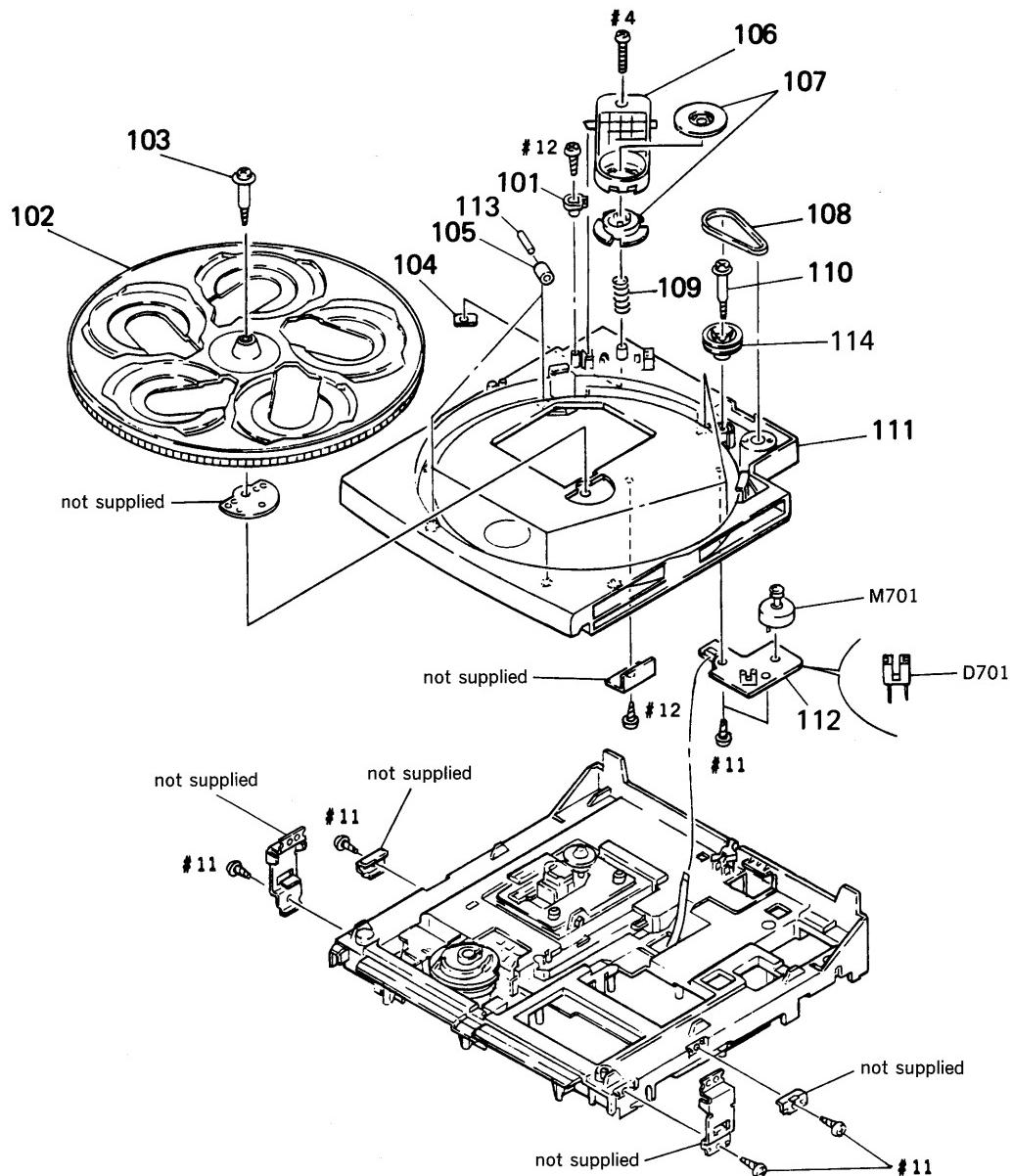
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
51	A-4353-845-A	LID (A) ASSY, CASSETTE	
52	A-4353-846-A	LID (B) ASSY, CASSETTE	
53	4-955-635-21	KNOB (V)	
* 54	4-962-705-21	CHASSIS, HOLDER	
55	4-962-703-22	KNOB (SUR)	
56	4-951-620-11	SCREW (2.6X10), +BVTP	
57	4-930-783-11	BUTTON (PO)	
* 58	1-690-708-11	CORD (WITH CONNECTOR) (US)	
58	1-765-058-11	CORD (WITH CONNECTOR) (Canadian)	
59	4-962-660-11	BUTTON (MEMORY)	
60	X-4945-480-1	PANEL ASSY, FRONT	
61	4-951-620-01	SCREW (2.6X8), +BVTP	
62	4-964-288-11	BUTTON (DDT-3)	
63	4-962-677-11	INDICATOR (SELECT 5)	
64	4-962-662-31	BUTTON (FU)	
65	4-962-682-11	INDICATOR (VO)	
* 66	A-4377-046-A	PANEL BOARD, COMPLETE	

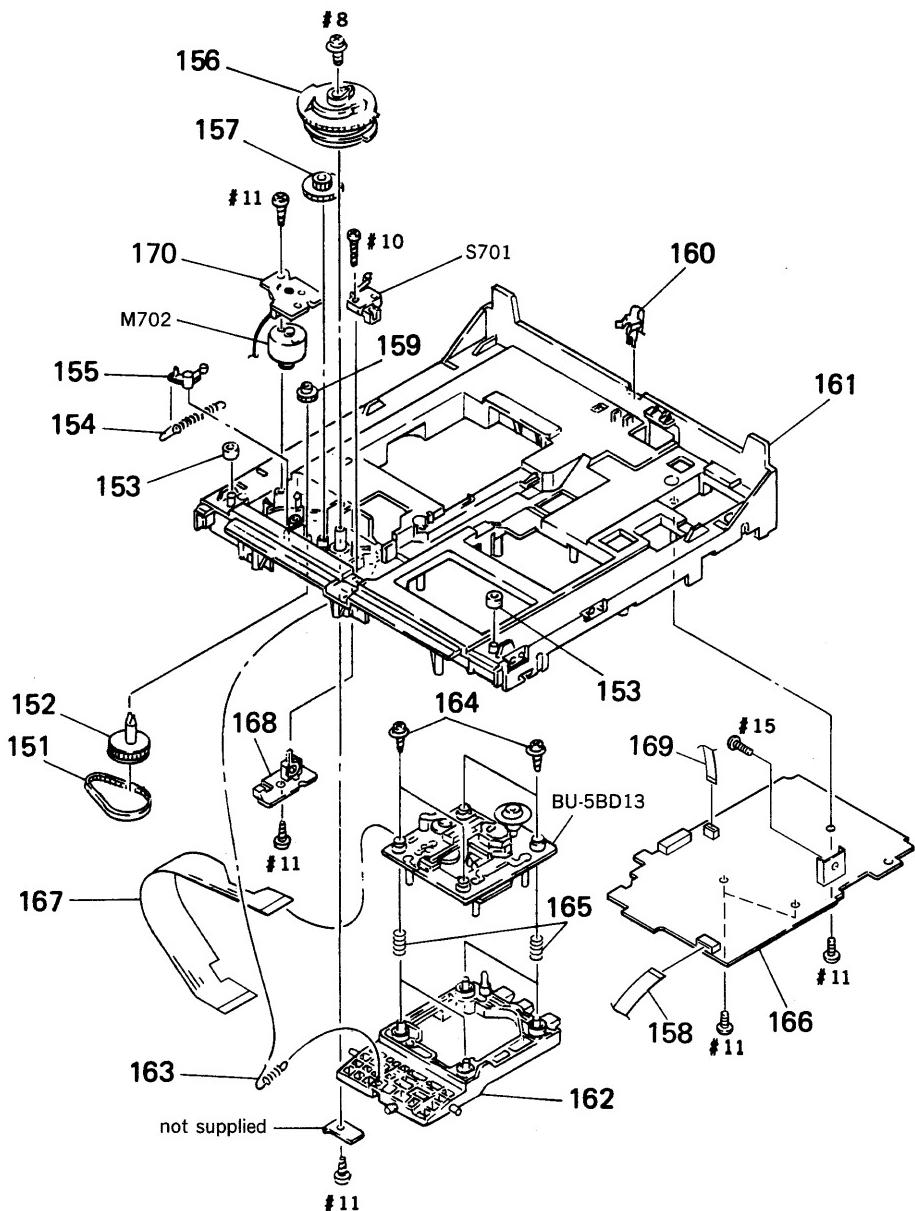
Ref. No.	Part No.	Description	Remark
67	4-962-661-11	BUTTON (BAND)	
68	4-962-666-11	BUTTON (PROGRAM)	
* 69	1-653-354-11	CD LOWER BOARD	
* 70	1-653-356-11	SW BOARD	
71	X-4944-977-1	BUTTON (CDM) ASSY	
* 72	1-653-353-11	CD UPPER BOARD	
* 73	1-653-355-11	H.P. BOARD	
74	4-962-663-11	BUTTON (MD-A)	
75	4-962-664-11	BUTTON (MD-B)	
* 76	A-4371-393-A	MAIN TC BOARD, COMPLETE	
* 77	4-960-235-11	HOLDER, PC BOARD	
* 78	4-949-935-01	CUSHION (FL)	
* 79	4-955-792-21	HOLDER (5M), FL TUBE	
80	4-962-678-11	BUTTON (SELECT 5)	
FL601	1-517-259-11	INDICATOR TUBE, FLUORESCENT	
△S1301 1-572-267-61 SWITCH, PUSH (AC POWER) (1 KEY) (POWER)			

6-3. TRAY SECTION



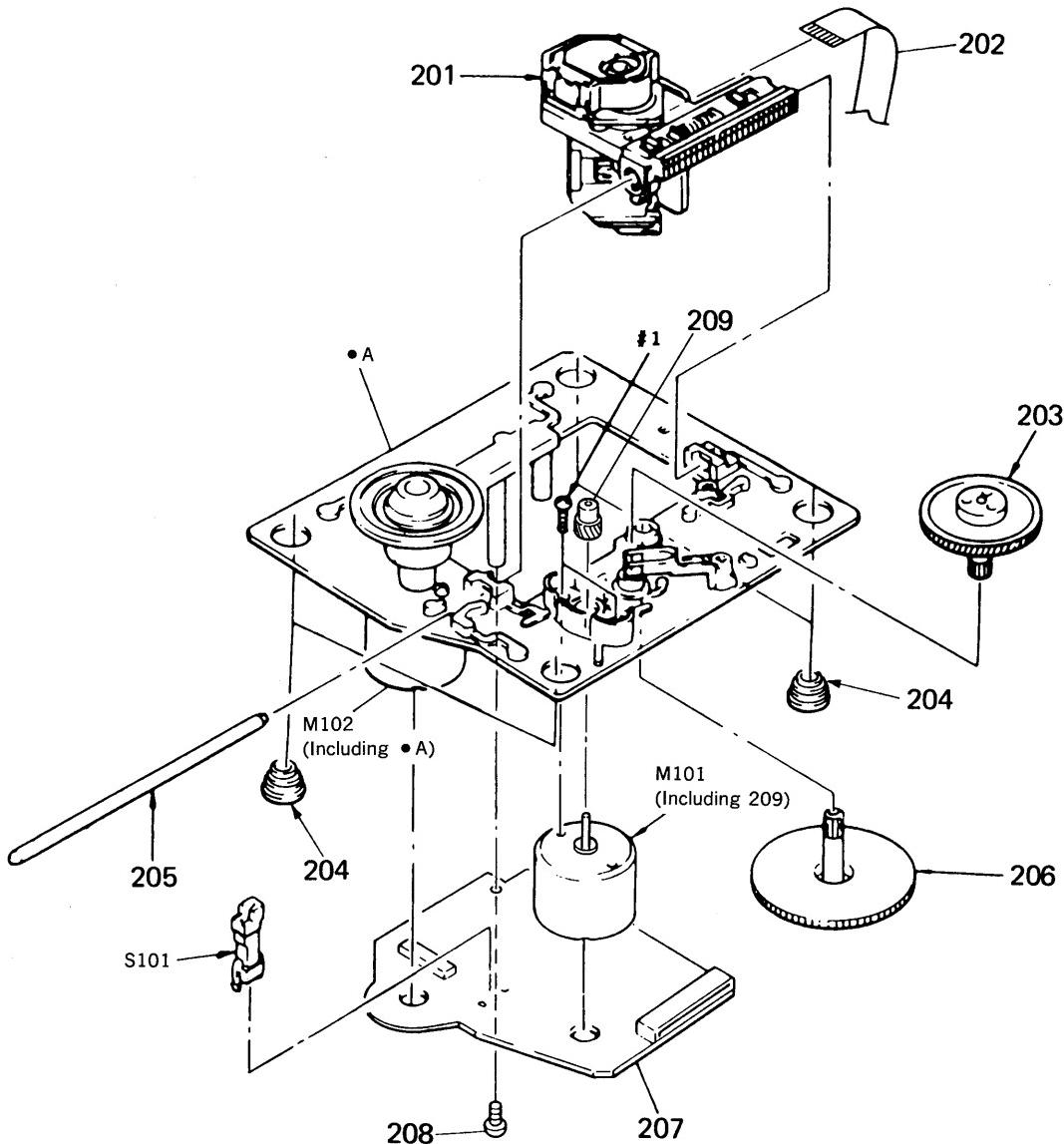
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	4-949-226-01	PLATE, LOCK		109	4-926-395-01	SPRING, COMPRESSION	
* 102	4-926-383-01	TABLE (B), DISC		110	4-923-597-01	SCREW, STEP	
103	4-926-384-01	SCREW, STEP		111	4-955-787-52	TABLE, DISC	
* 104	4-926-388-01	BRACKET (ADJUSTMENT)		* 112	1-638-729-11	TABLE MOTOR BOARD	
105	X-4924-457-1	ROLLER ASSY		113	4-934-376-01	SHAFT (ROLLER)	
* 106	4-930-506-02	BRACKET (PRESS PULLEY)		114	4-934-380-01	PULLEY (R)	
* 107	1-452-538-11	MAGNET		D701	8-719-970-19	PHOTO SENSOR GP1A521	
108	4-926-399-01	BELT		M701	A-4353-976-A	MOTOR ASSY, ROTARY	

6-4. CD CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-944-490-01	BELT (TIMING)		* 162	4-934-373-01	BRACKET (BU)	
152	X-4941-529-1	PULLEY ASSY		163	4-937-911-01	SPRING, TENSION	
* 153	4-951-619-01	CUSHION (A)		164	4-933-134-01	SCREW (+PTPWH M2.6X6)	
154	4-924-412-01	SPRING (B), TENSION		165	4-958-593-01	SPRING (BU), COMPRESSION	
155	4-917-519-01	LEVER, SET		* 166	A-4371-375-A	CD MAIN BOARD, COMPLETE	
156	4-934-391-01	GEAR (LOADING A)		167	1-537-645-11	JUMPER, FILM (WITH TERMINAL)	
157	4-934-381-01	GEAR (LOADING C)		* 168	1-638-731-11	OPEN/UP SW BOARD	
158	1-765-195-11	WIRE (FLAT TYPE) (7 CORE)		169	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
159	4-934-375-11	GEAR (LOADING B)		* 170	1-638-288-11	LOADING MOTOR BOARD	
* 160	4-943-996-06	SPRING, LEAF		M702	A-4353-974-A	MOTOR ASSY, LOADING	
* 161	4-943-997-31	CHASSIS		S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR) (DOWN)	

**6-5. OPTICAL PICK-UP BLOCK SECTION
(BU-5BD13)**

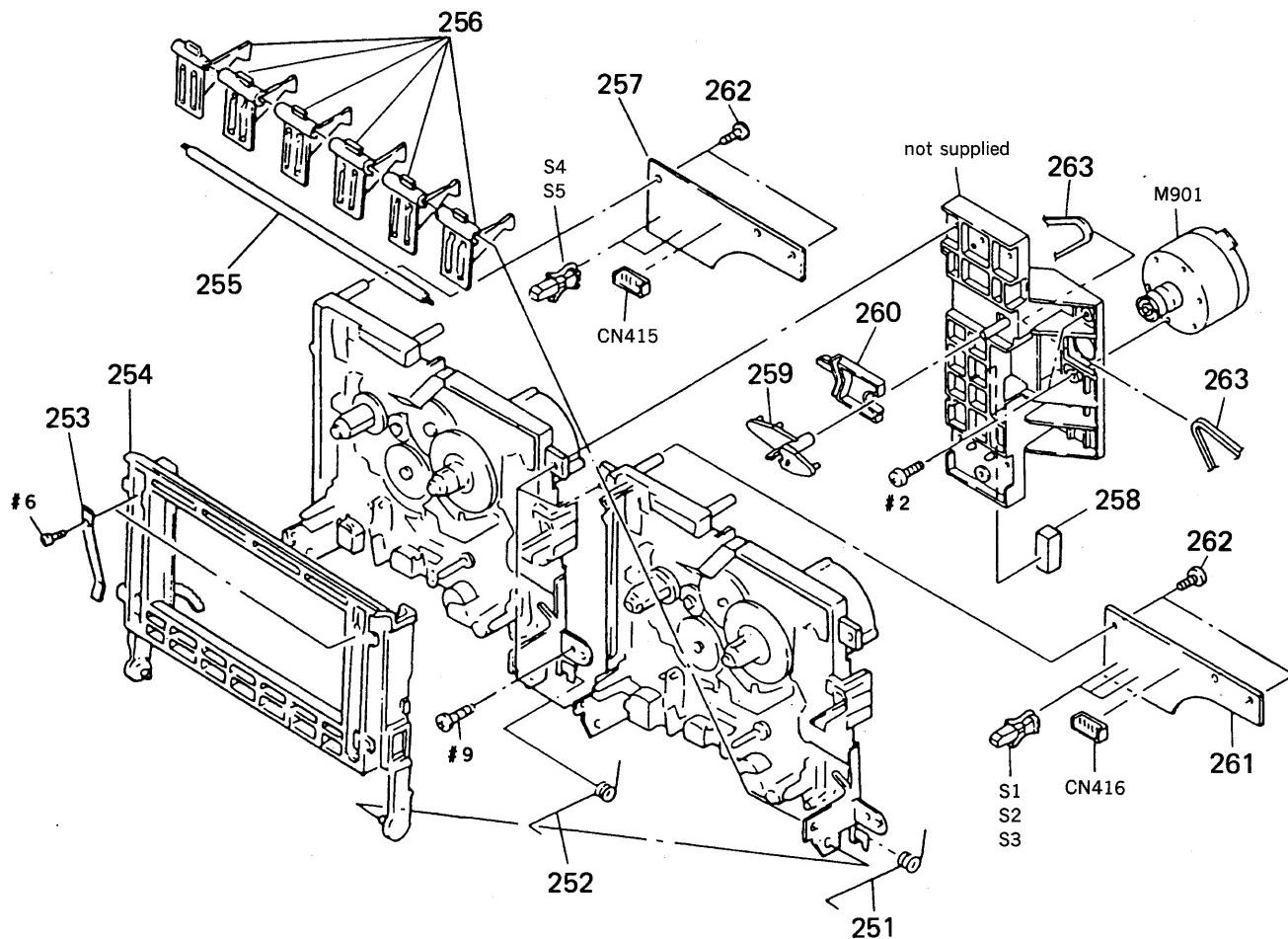


<p>The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark
Δ 201	8-848-144-11	PICK-UP, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
203	4-917-567-21	GEAR (M)	
204	4-951-940-01	INSULATOR (BU)	
205	4-917-565-01	SHAFT, SLED	
206	4-917-564-01	GEAR (P), FLATNESS	

Ref. No.	Part No.	Description	Remark
* 207	A-4649-890-A	BD BOARD, COMPLETE	
208	4-951-620-01	SCREW (2.6X8), +BVTP	
209	4-917-566-01	GEAR (S)	
M101	X-4917-504-1	MOTOR ASSY (SLED MOTOR)	
M102	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

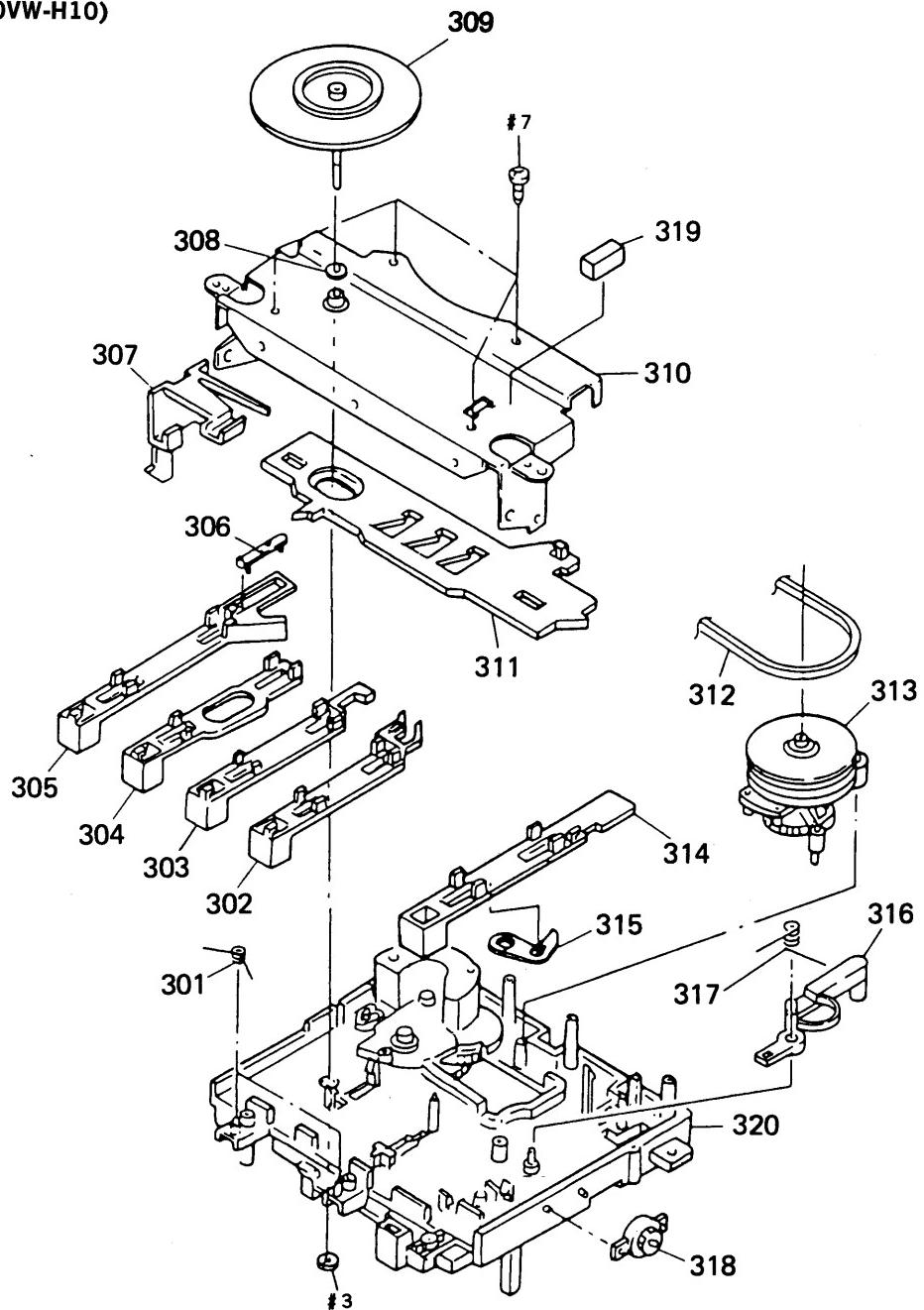
6-6. MECHANISM DECK SECTION 1 (TCM-180VW-H10)



Ref. No.	Part No.	Description	Remark
251	3-358-287-01	SPRING (LOADING A), TORSION	
252	3-358-229-01	SPRING (LOADING), TORSION	
253	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF	
254	3-358-266-02	HOLDER, CASSETTE	
255	3-371-917-01	SHAFT (BUTTON SHAFT 4)	
256	3-369-335-01	LEVER (BUTTON BASE F)	
* 257	1-640-702-11	LEAF SW (A) BOARD	
* 258	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
259	3-358-203-01	LEVER (TRIGGER)	
260	3-358-202-01	SLIDER (TRIGGER)	
* 261	1-640-703-11	LEAF SW (B) BOARD	

Ref. No.	Part No.	Description	Remark
262	4-951-620-01	SCREW (2. 6X8) +BVTP	
263	3-364-777-01	BELT (WH)	
* CN415	1-568-942-11	PIN, CONNECTOR 4P	
* CN416	1-568-943-11	PIN, CONNECTOR 5P	
M901	X-3362-377-1	MOTOR (WH) ASSY	
S1	1-571-736-11	SWITCH, LEAF (MOTOR) (DECK B)	
S2	1-571-736-11	SWITCH, LEAF (PLAY) (DECK B)	
S3	1-571-736-11	SWITCH, LEAF (REC) (DECK B)	
S4	1-571-736-11	SWITCH, LEAF (MOTOR) (DECK A)	
S5	1-571-736-11	SWITCH, LEAF (PLAY) (DECK A)	

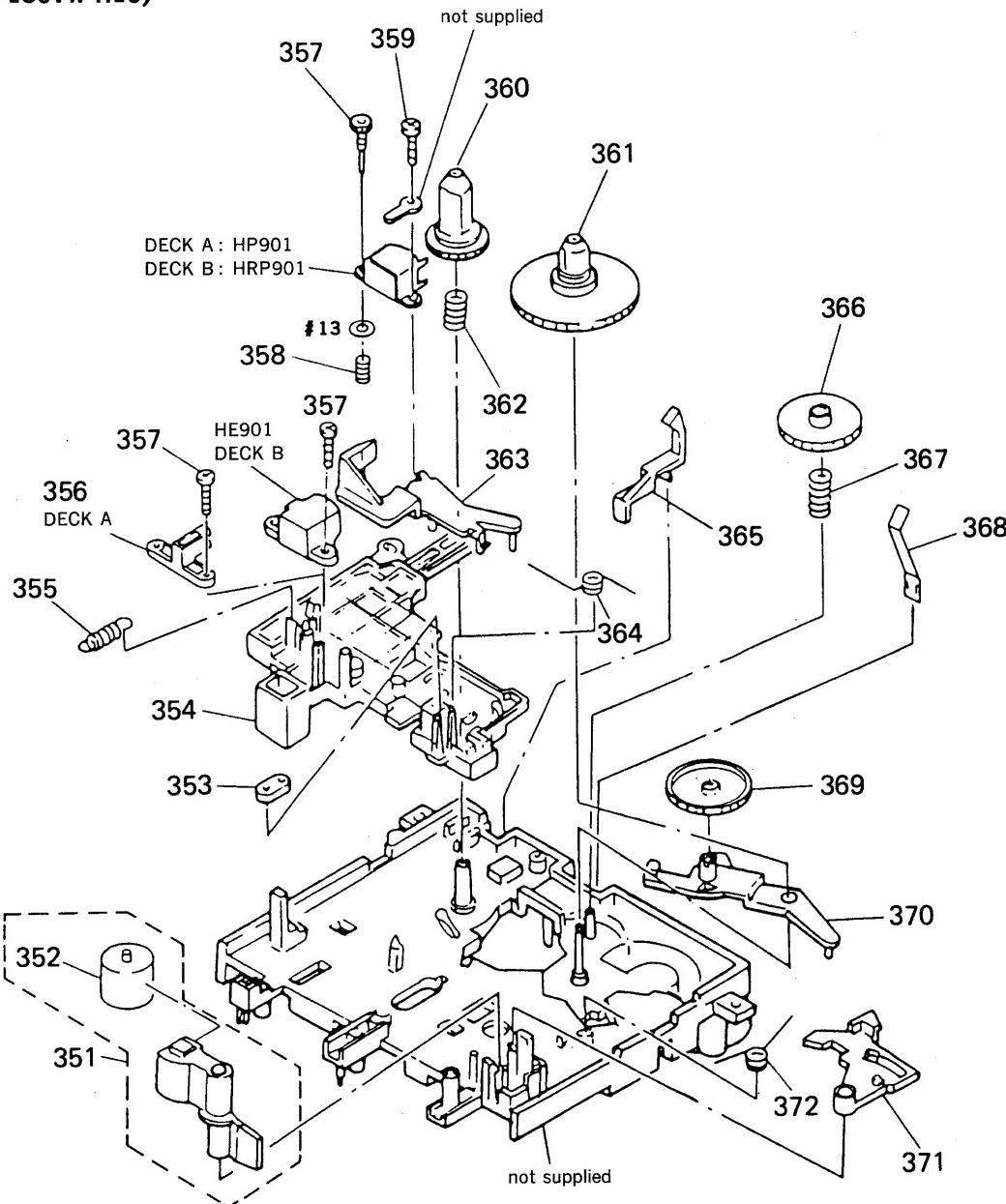
**6-7. MECHANISM DECK SECTION 2
(TCM-180VW-H10)**



Ref. No.	Part No.	Description	Remark
301	3-358-232-01	SPRING (S-P F-R), TORSION	
302	3-358-258-01	SLIDER (REW)	
303	3-358-257-01	SLIDER (FF)	
304	3-358-256-01	SLIDER (STOP/EJECT)	
305	3-358-260-01	SLIDER (PAUSE)	
* 306	3-358-226-01	LEVER (PAUSE LEVER)	
* 307	3-358-261-02	SLIDER (HOLDER LOCK)	
308	3-701-437-01	WASHER	
309	X-3358-205-1	FLYWHEEL (A) ASSY (DECK B)	
309	X-3366-859-1	FLYWHEEL (D) ASSY (DECK A)	
310	X-3365-582-1	BRACKET (D) ASSY	

Ref. No.	Part No.	Description	Remark
* 311	3-358-249-01	SLIDER (LOCK PLATE)	
312	3-358-230-01	BELT (A1)	
313	X-3358-202-1	LEVER (FR ARM) ASSY	
314	3-358-259-01	SLIDER (REC) (DECK B)	
* 315	3-358-204-01	LEVER (REC SAFETY) (DECK B)	
316	3-358-286-02	LEVER (MOTOR LEVER)	
317	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
317	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
318	3-319-224-51	DAMPER, SMALL	
* 319	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
320	X-3358-207-2	CHASSIS (A) ASSY	

**6-8. MECHANISM DECK SECTION 3
(TCM-180VW-H10)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	X-3358-204-1	LEVER (PINCH LEVER) ASSY		364	3-358-228-01	SPRING, TORSION	
352	3-578-143-11	PINCH ROLLER		* 365	3-358-255-01	LEVER (GB LEVER)	
* 353	3-358-215-01	BUSHING (WIRE KIT RETAINER)		* 366	3-358-224-01	GEAR (FF GEAR)	
354	3-358-265-01	SLIDER (HEAD PC BOARD A)		367	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
355	3-358-217-01	SPRING, TENSION		368	3-358-227-01	SPRING, LEAF	
* 356	3-363-931-01	GUIDE, TAPE (DECK A)		* 369	3-358-284-01	GEAR (TU GEAR)	
357	3-358-288-11	SCREW (T), AZIMUTH		* 370	3-358-252-01	LEVER (TU ARM)	
358	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		* 371	3-358-253-01	LEVER (SHUT-OFF LEVER)	
359	3-358-288-01	SCREW (T), AZIMUTH		372	3-358-243-01	SPRING (TU-SHUT), TORSION	
360	3-358-248-01	GEAR (SUPPLY REEL)		HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
361	X-3358-203-1	TABLE (T) ASSY, REEL		HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
362	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
* 363	3-358-251-01	LEVER (TENSION DETECTION ARM)					

SECTION 7

ELECTRICAL PARTS LIST

BD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- **SEMICONDUCTORS**
In each case, u: μ , for example:
uA .. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- **CAPACITORS**
uF: μ F
- **COILS**
uH: μ H

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark											
*	A-4649-890-A	BD BOARD, COMPLETE	*****			< CONNECTOR >														
< CAPACITOR >																				
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	IC101	8-752-351-94	IC	CXD2515Q											
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V	IC102	8-759-176-09	IC	BA6392FP											
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	IC103	8-752-367-61	IC	CXD2565AM											
C105	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V	< IC >														
C106	1-164-346-11	CERAMIC CHIP	1uF		16V	L101-103	1-414-234-11 INDUCTOR, FERRITE BEAD													
C107	1-164-505-11	CERAMIC CHIP	2.2uF		16V	L104	1-216-001-00	METAL CHIP	10	5%	1/10W									
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V	L105	1-216-295-00	CONDUCTOR, CHIP			(2012)									
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V	L106	1-414-234-11	INDUCTOR, FERRITE BEAD												
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	L107	1-216-295-00	CONDUCTOR, CHIP			(2012)									
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	L108	1-216-295-00	CONDUCTOR, CHIP			(2012)									
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V	< COIL >														
C113	1-163-038-00	CERAMIC CHIP	0.1uF		25V	L109-133	1-414-234-11 INDUCTOR, FERRITE BEAD													
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V	L110	1-216-001-00	METAL CHIP	10	5%	1/10W									
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V	L111	1-216-295-00	CONDUCTOR, CHIP			(2012)									
C131-133	1-163-038-00 CERAMIC CHIP		0.1uF		25V	L112	1-216-295-00	CONDUCTOR, CHIP												
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R101	1-216-077-00	METAL CHIP	15K	5%	1/10W									
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	R102	1-216-097-00	METAL CHIP	100K	5%	1/10W									
C161	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R103	1-216-077-00	METAL CHIP	15K	5%	1/10W									
C177-179	1-163-038-00 CERAMIC CHIP		0.1uF		25V	R104	1-216-085-00	METAL CHIP	33K	5%	1/10W									
C181	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R105	1-216-065-00	METAL CHIP	4.7K	5%	1/10W									
C182	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W									
C183-185	1-135-156-21 TANTALUM CHIP		6.8uF	10%	10V	R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W									
C186-188	1-163-038-00 CERAMIC CHIP		0.1uF		25V	R108	1-216-073-00	METAL CHIP	10K	5%	1/10W									
C191	1-163-091-00	CERAMIC CHIP	8PF		50V	R109	1-216-121-00	METAL CHIP	1M	5%	1/10W									
C192	1-163-091-00	CERAMIC CHIP	8PF		50V	R110	1-216-025-00	METAL CHIP	100	5%	1/10W									
C193	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	R111	1-216-049-00	METAL CHIP	1K	5%	1/10W									
C194	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	R112	1-216-295-00	CONDUCTOR, CHIP			(2012)									
C195	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R113	1-216-073-00	METAL CHIP	10K	5%	1/10W									
C196	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	R114	1-216-097-00	METAL CHIP	100K	5%	1/10W									
C197	1-163-038-00	CERAMIC CHIP	0.1uF		25V	R115	1-216-049-00	METAL CHIP	1K	5%	1/10W									
						R116	1-216-037-00	METAL CHIP	330	5%	1/10W									
						R117	1-216-111-00	METAL CHIP	390K	5%	1/10W									
						R118	1-216-101-00	METAL CHIP	150K	5%	1/10W									
						R119	1-216-053-00	METAL CHIP	1.5K	5%	1/10W									

BD**CD LOWER****CD MAIN**

Ref. No.	Part No.	Description	Remark		
R182-185					
	1-216-080-00	METAL CHIP	20K	5%	1/10W
R187	1-216-035-00	METAL CHIP	270	5%	1/10W
R188	1-216-121-00	METAL CHIP	1M	5%	1/10W
R189	1-414-234-11	INDUCTOR, FERRITE BEAD			
			< SWITCH >		
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
			< VIBRATOR >		
X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)			

*	1-653-354-11	CD LOWER BOARD			

			< CONNECTOR >		
CN201	1-691-644-11	SOCKET, CONNECTOR 7P			
			< RESISTOR >		
R201	1-249-418-11	CARBON	1. 2K	5%	1/4W
R202	1-247-836-11	CARBON	1. 6K	5%	1/4W
R203	1-249-421-11	CARBON	2. 2K	5%	1/4W
R204	1-249-423-11	CARBON	3. 3K	5%	1/4W
R205	1-249-426-11	CARBON	5. 6K	5%	1/4W
R206	1-247-856-00	CARBON	11K	5%	1/4W
R207	1-249-418-11	CARBON	1. 2K	5%	1/4W
R208	1-247-836-11	CARBON	1. 6K	5%	1/4W
			< SWITCH >		
S201	1-554-303-21	SWITCH, TACTILE (PROGRAM (PLAY MODE))			
S202	1-554-303-21	SWITCH, TACTILE (SHUFFLE (PLAY MODE))			
S203	1-554-303-21	SWITCH, TACTILE (CONTINUE (PLAY MODE))			
S204	1-554-303-21	SWITCH, TACTILE (EDIT)			
S205	1-554-303-21	SWITCH, TACTILE (CLEAR)			
S206	1-554-303-21	SWITCH, TACTILE (CHECK)			
S207	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)			
S208	1-554-303-21	SWITCH, TACTILE (REPEAT)			
S209	1-554-303-21	SWITCH, TACTILE (TIME)			

*	A-4371-375-A	CD MAIN BOARD, COMPLETE			

			< CAPACITOR >		
C306	1-126-059-11	ELECT	10uF	20%	50V
C307	1-126-163-11	ELECT	4. 7uF	20%	50V
C308	1-124-472-11	ELECT	470uF	20%	10V

Ref. No.	Part No.	Description	Remark		
C309	1-124-473-11	ELECT	1000uF	20%	10V
C311	1-126-300-11	ELECT	0. 47uF	20%	50V
C312	1-124-472-11	ELECT	470uF	20%	10V
C314	1-126-059-11	ELECT	10uF	20%	50V
C315	1-126-163-11	ELECT	4. 7uF	20%	50V
C317	1-126-163-11	ELECT	4. 7uF	20%	50V
C318	1-164-159-11	CERAMIC	0. 1uF		50V
C320	1-161-494-00	CERAMIC	0. 022uF		25V
C321	1-126-022-11	ELECT	47uF	20%	16V
C322	1-161-494-00	CERAMIC	0. 022uF		25V
C323	1-164-159-11	CERAMIC	0. 1uF		50V
C341	1-126-376-11	ELECT	470uF	20%	25V
C362	1-164-159-11	CERAMIC	0. 1uF		50V
C364	1-164-159-11	CERAMIC	0. 1uF		50V
C366	1-162-282-31	CERAMIC	100PF	10%	50V
C371-374					
	1-162-284-31	CERAMIC	150PF	10%	50V
C375	1-130-479-00	MYLAR	0. 0047uF	5%	50V
C376	1-130-479-00	MYLAR	0. 0047uF	5%	50V
C377	1-130-472-00	MYLAR	0. 0012uF	5%	50V
C378	1-130-472-00	MYLAR	0. 0012uF	5%	50V
C379	1-124-443-00	ELECT	100uF	20%	10V
C380	1-124-443-00	ELECT	100uF	20%	10V
C381	1-162-291-31	CERAMIC	560PF	10%	50V
C382	1-162-291-31	CERAMIC	560PF	10%	50V
			< CONNECTOR >		
CN301	1-750-585-11	CONNECTOR, FFC/FPC 7P			
* CN303	1-568-943-11	PIN, CONNECTOR 5P			
CN305	1-750-997-11	CONNECTOR, FFC/FPC 5P			
CN306	1-764-415-11	CONNECTOR, FFC/FPC 26P			
* CN309	1-568-836-11	SOCKET, CONNECTOR 17P			
			< DIODE >		
D321	8-719-987-63	DIODE	1N4148M		
D341	8-719-010-42	DIODE	UZ-5. 6BSB		
			< IC >		
IC302	8-759-061-65	IC	LA5602		
IC304	8-759-805-37	IC	L78LR05D-MA		
IC305	8-759-071-48	IC	TA7807S		
IC321	8-752-857-34	IC	CXP82316-043Q		
IC341	8-759-172-31	IC	BA6191		
IC371	8-759-634-51	IC	M5218AP		
IC372	8-759-634-51	IC	M5218AP		
			< DIODE >		
JW304	8-719-024-99	DIODE	11ES2-NTA2B		
JW317	8-719-024-99	DIODE	11ES2-NTA2B		

CD MAIN	CD UPPER	H. P	LEAF SW (A)
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark								
JW427	8-719-987-63	DIODE 1N4148M		*	1-653-353-11	CD UPPER BOARD	*****								
JW428	8-719-987-63	DIODE 1N4148M													
< TRANSISTOR >															
Q302	8-729-900-65	TRANSISTOR DTA144ES		D201	8-719-313-72	LED SEL3810A-CD (II)									
Q303	8-729-900-89	TRANSISTOR DTC144ES		D202	8-719-313-66	LED SEL6410E-TH12 (>)									
Q322	8-729-119-78	TRANSISTOR 2SC2785-HFE		< RESISTOR >											
Q352	8-729-900-65	TRANSISTOR DTA144ES		R209	1-249-421-11	CARBON 2. 2K 5% 1/4W									
Q353	8-729-900-65	TRANSISTOR DTA144ES		R210	1-249-423-11	CARBON 3. 3K 5% 1/4W									
< RESISTOR >				R211	1-249-426-11	CARBON 5. 6K 5% 1/4W									
R308	1-260-064-11	CARBON 1 5% 1/2W		R212	1-247-856-00	CARBON 11K 5% 1/4W									
R321	1-249-429-11	CARBON 10K 5% 1/4W		R213	1-249-418-11	CARBON 1. 2K 5% 1/4W									
R322	1-249-429-11	CARBON 10K 5% 1/4W		R214	1-247-836-11	CARBON 1. 6K 5% 1/4W									
R323	1-249-417-11	CARBON 1K 5% 1/4W		R215	1-249-421-11	CARBON 2. 2K 5% 1/4W									
R324-329	1-249-428-11	CARBON 8. 2K 5% 1/4W		R216	1-249-423-11	CARBON 3. 3K 5% 1/4W									
R333	1-249-417-11	CARBON 1K 5% 1/4W		R217	1-249-426-11	CARBON 5. 6K 5% 1/4W									
R334	1-249-425-11	CARBON 4. 7K 5% 1/4W		R218	1-247-856-00	CARBON 11K 5% 1/4W									
R335	1-249-429-11	CARBON 10K 5% 1/4W		R219	1-249-411-11	CARBON 330 5% 1/4W									
R336	1-249-429-11	CARBON 10K 5% 1/4W		R220	1-249-410-11	CARBON 270 5% 1/4W									
R338-340	1-249-425-11	CARBON 4. 7K 5% 1/4W		< SWITCH >											
R341-344	1-247-876-11	CARBON 75K 5% 1/4W		S210	1-554-303-21	SWITCH, TACTILE (1 (DISC SELECT))									
R345	1-249-423-11	CARBON 3. 3K 5% 1/4W		S211	1-554-303-21	SWITCH, TACTILE (2 (DISC SELECT))									
R346	1-249-424-11	CARBON 3. 9K 5% 1/4W		S212	1-554-303-21	SWITCH, TACTILE (3 (DISC SELECT))									
R347	1-249-415-11	CARBON 680 5% 1/4W		S213	1-554-303-21	SWITCH, TACTILE (4 (DISC SELECT))									
R348	1-247-834-11	CARBON 1. 3K 5% 1/4W		S214	1-554-303-21	SWITCH, TACTILE (5 (DISC SELECT))									
R359	1-249-417-11	CARBON 1K 5% 1/4W		S215	1-554-303-21	SWITCH, TACTILE (◀◀ (AMS))									
R360	1-249-417-11	CARBON 1K 5% 1/4W		S216	1-554-303-21	SWITCH, TACTILE (▶▶ (AMS))									
R361	1-249-429-11	CARBON 10K 5% 1/4W		S217	1-554-303-21	SWITCH, TACTILE (>)									
R363	1-249-417-11	CARBON 1K 5% 1/4W		S218	1-554-303-21	SWITCH, TACTILE (II)									
R365-368	1-249-417-11	CARBON 1K 5% 1/4W		S219	1-554-303-21	SWITCH, TACTILE (■)									
R371-374	1-247-852-11	CARBON 7. 5K 5% 1/4W		S220	1-554-303-21	SWITCH, TACTILE (DISC SKIP)									
R375-378	1-249-431-11	CARBON 15K 5% 1/4W		S221	1-554-303-21	SWITCH, TACTILE (△ OPEN/CLOSE)									
R379-382	1-249-419-11	CARBON 1. 5K 5% 1/4W		*****											
R383	1-249-441-11	CARBON 100K 5% 1/4W		* 1-653-355-11	H. P BOARD										
R384	1-249-441-11	CARBON 100K 5% 1/4W		*****											
R385	1-249-421-11	CARBON 2. 2K 5% 1/4W		< JACK >											
R386	1-249-421-11	CARBON 2. 2K 5% 1/4W		CNJ1201 1-569-113-11 JACK, LARGE TYPE (HEADPHONES)											
R389	1-247-807-31	CARBON 100 5% 1/4W		*****											
R390	1-247-807-31	CARBON 100 5% 1/4W		* 1-640-702-11	LEAF SW (A) BOARD										
< VIBRATOR >								*****							
X321	1-579-175-11	VIBRATOR, CERAMIC (10MHz)		< CAPACITOR >											
				C544	1-164-159-11	CERAMIC 0. 1uF	50V								

LEAF SW (A)

LEAF SW (B)

LOADING MOTOR

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< CONNECTOR >				C14	1-124-903-11 ELECT	1uF	20% 50V
* CN415 1-568-942-11 PIN, CONNECTOR 4P				C15-18	1-124-907-11 ELECT	10uF	20% 50V
< SWITCH >				C19	1-136-180-00 FILM	0.039uF	5% 50V
S4 1-571-736-11 SWITCH, LEAF (MOTOR (DECK A))				C20	1-136-180-00 FILM	0.039uF	5% 50V
S5 1-571-736-11 SWITCH, LEAF (PLAY (DECK A))				C21	1-161-046-00 CERAMIC	0.0039uF	10% 25V
*****				C22	1-161-046-00 CERAMIC	0.0039uF	10% 25V
* 1-640-703-11 LEAF SW (B) BOARD				C23	1-124-903-11 ELECT	1uF	20% 50V
*****				C24	1-162-294-31 CERAMIC	0.001uF	10% 50V
< CAPACITOR >				C25	1-162-303-11 CERAMIC	0.0033uF	30% 16V
C545 1-164-159-11 CERAMIC 0.1uF 50V				C26	1-104-664-11 ELECT	47uF	20% 16V
< CONNECTOR >				C27	1-126-962-11 ELECT	3.3uF	20% 50V
* CN416 1-568-943-11 PIN, CONNECTOR 5P				C28	1-161-494-00 CERAMIC	0.022uF	25V
< SWITCH >				C29	1-124-907-11 ELECT	10uF	20% 50V
S1 1-571-736-11 SWITCH, LEAF (MOTOR (DECK B))				C30	1-161-494-00 CERAMIC	0.022uF	25V
S2 1-571-736-11 SWITCH, LEAF (PLAY (DECK B))				C31	1-101-005-00 CERAMIC	22000PF	50V
*****				C32	1-162-198-31 CERAMIC	8.2PF	10% 50V
* 1-638-288-11 LOADING MOTOR BOARD				C33	1-162-306-11 CERAMIC	0.01uF	30% 16V
*****				C45	1-162-306-11 CERAMIC	0.01uF	30% 16V
< CAPACITOR >				C51	1-102-961-00 CERAMIC	27PF	5% 50V
C705 1-162-302-11 CERAMIC 0.0022uF 30% 16V				C52	1-102-961-00 CERAMIC	27PF	5% 50V
*****				C53	1-104-664-11 ELECT	47uF	20% 16V
* A-4377-049-A MAIN BOARD, COMPLETE (Canadian)				C54-58	1-162-306-11 CERAMIC	0.01uF	30% 16V
* A-4377-805-A MAIN BOARD, COMPLETE (US)				C61	1-124-925-11 ELECT	2.2uF	20% 100V
*****				C62	1-124-463-00 ELECT	0.1uF	20% 50V
7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S				C63	1-162-306-11 CERAMIC	0.01uF	30% 16V
< CAPACITOR >				C64	1-162-306-11 CERAMIC	0.01uF	30% 16V
C1 1-162-306-11 CERAMIC 0.01uF 30% 16V				C65	1-124-120-11 ELECT	220uF	20% 25V
C2 1-104-664-11 ELECT 47uF 20% 16V				C67	1-162-306-11 CERAMIC	0.01uF	30% 16V
C3 1-162-306-11 CERAMIC 0.01uF 30% 16V				C75	1-162-199-31 CERAMIC	10PF	5% 50V
C4 1-162-306-11 CERAMIC 0.01uF 30% 16V				C1001	1-124-257-00 ELECT	2.2uF	20% 50V
C5 1-164-159-11 CERAMIC 0.1uF 50V				C1007	1-124-257-00 ELECT	2.2uF	20% 50V
C6 1-162-306-11 CERAMIC 0.01uF 30% 16V				C1010	1-104-664-11 ELECT	47uF	20% 16V
C7 1-104-664-11 ELECT 47uF 20% 16V				C1051	1-124-257-00 ELECT	2.2uF	20% 50V
C8-10 1-162-306-11 CERAMIC 0.01uF 30% 16V				C1057	1-124-257-00 ELECT	2.2uF	20% 50V
C11 1-124-907-11 ELECT 10uF 20% 50V				C1060	1-104-664-11 ELECT	47uF	20% 16V
C12 1-124-902-00 ELECT 0.47uF 20% 50V				C1221	1-104-665-11 ELECT	100uF	20% 16V
C13 1-124-903-11 ELECT 1uF 20% 50V				C1222	1-104-665-11 ELECT	100uF	20% 16V
*****				C1222	1-104-666-11 ELECT	220uF	20% 6.3V (US)
*****				C1223	1-104-666-11 ELECT	220uF	20% 6.3V (Canadian)
*****				△C1302	1-102-394-11 CERAMIC	0.01uFX2	250V
*****				C1304	1-126-974-11 ELECT	3300uF	20% 50V
*****				C1305	1-126-974-11 ELECT	3300uF	20% 50V
*****				C1306	1-104-664-11 ELECT	47uF	20% 16V
*****				C1308	1-104-665-11 ELECT	100uF	20% 16V
*****				C1309	1-104-665-11 ELECT	100uF	20% 16V
*****							(Canadian)

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN

The components identified by mark **A** or dotted line with mark. **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q55	8-729-422-57	TRANSISTOR	UN4111	R68	1-249-425-11	CARBON	4.7K 5% 1/4W
Q61	8-729-202-67	TRANSISTOR	2SK246-GR3	R69	1-247-807-31	CARBON	100 5% 1/4W
Q62	8-729-201-84	TRANSISTOR	2SC3112-B	R1001	1-249-417-11	CARBON	1K 5% 1/4W
Q1001	8-729-119-78	TRANSISTOR	2SC2785-HFE	R1007	1-249-441-11	CARBON	100K 5% 1/4W
Q1051	8-729-119-78	TRANSISTOR	2SC2785-HFE	R1010	1-249-417-11	CARBON	1K 5% 1/4W
Q1204	8-729-900-63	TRANSISTOR	DTA124ES	R1016	1-249-437-11	CARBON	47K 5% 1/4W
Q1301	8-729-141-83	TRANSISTOR	2SB1094-LK	R1017	1-249-437-11	CARBON	47K 5% 1/4W
Q1302	8-729-209-15	TRANSISTOR	2SD2012	R1021	1-249-434-11	CARBON	27K 5% 1/4W
< RESISTOR >				R1023	1-249-434-11	CARBON	27K 5% 1/4W
R1	1-249-411-11	CARBON	330 5% 1/4W	R1034	1-249-425-11	CARBON	4.7K 5% 1/4W
R2	1-249-411-11	CARBON	330 5% 1/4W	R1035	1-247-863-91	CARBON	22K 5% 1/4W
R3	1-247-815-91	CARBON	220 5% 1/4W	R1037	1-249-437-11	CARBON	47K 5% 1/4W
△R4	1-249-402-11	CARBON	56 5% 1/4W F	R1051	1-249-417-11	CARBON	1K 5% 1/4W
R5	1-247-891-00	CARBON	330K 5% 1/4W	R1057	1-249-441-11	CARBON	100K 5% 1/4W
R6	1-249-411-11	CARBON	330 5% 1/4W	R1060	1-249-417-11	CARBON	1K 5% 1/4W
△R9	1-249-405-11	CARBON	100 5% 1/4W F	R1071	1-249-434-11	CARBON	27K 5% 1/4W
R10	1-249-437-11	CARBON	47K 5% 1/4W	R1073	1-249-434-11	CARBON	27K 5% 1/4W
R12	1-249-429-11	CARBON	10K 5% 1/4W	R1084	1-249-425-11	CARBON	4.7K 5% 1/4W
R13	1-249-442-11	CARBON	510 5% 1/4W	R1085	1-247-863-91	CARBON	22K 5% 1/4W
△R14	1-249-403-11	CARBON	68 5% 1/4W F	R1087	1-249-437-11	CARBON	47K 5% 1/4W
R16	1-249-429-11	CARBON	10K 5% 1/4W	R1222	1-249-415-11	CARBON	680 5% 1/4W
R17	1-247-842-11	CARBON	3K 5% 1/4W	R1223	1-249-415-11	CARBON	680 5% 1/4W
R18	1-249-429-11	CARBON	10K 5% 1/4W	△R1226	1-215-891-11	METAL OXIDE	680 5% 2W F (US)
R19	1-249-441-11	CARBON	100K 5% 1/4W	△R1226	1-216-454-11	METAL OXIDE	390 5% 2W F (Canadian)
R20	1-249-435-11	CARBON	33K 5% 1/4W	R1233	1-249-425-11	CARBON	4.7K 5% 1/4W
R21	1-249-441-11	CARBON	100K 5% 1/4W	R1234	1-249-425-11	CARBON	4.7K 5% 1/4W
R22	1-249-437-11	CARBON	47K 5% 1/4W	R1235	1-249-435-11	CARBON	33K 5% 1/4W
R23	1-249-399-11	CARBON	33 5% 1/4W	R1236	1-249-441-11	CARBON	100K 5% 1/4W
R35	1-249-423-11	CARBON	3.3K 5% 1/4W	R1237	1-249-429-11	CARBON	10K 5% 1/4W
R36	1-249-423-11	CARBON	3.3K 5% 1/4W	R1240	1-249-438-11	CARBON	56K 5% 1/4W
R45	1-249-426-11	CARBON	5.6K 5% 1/4W	R1272	1-249-415-11	CARBON	680 5% 1/4W
R46	1-249-426-11	CARBON	5.6K 5% 1/4W	R1273	1-249-415-11	CARBON	680 5% 1/4W
R48	1-249-423-11	CARBON	3.3K 5% 1/4W	R1290	1-249-437-11	CARBON	47K 5% 1/4W
R49	1-249-429-11	CARBON	10K 5% 1/4W	R1301	1-249-429-11	CARBON	10K 5% 1/4W
△R50	1-249-401-11	CARBON	47 5% 1/4W F	R1302	1-249-429-11	CARBON	10K 5% 1/4W
R51-54				R1303	1-249-421-11	CARBON	2.2K 5% 1/4W
	1-249-417-11	CARBON	1K 5% 1/4W	R1304	1-249-425-11	CARBON	4.7K 5% 1/4W
R56	1-249-425-11	CARBON	4.7K 5% 1/4W	R1321	1-249-417-11	CARBON	1K 5% 1/4W
R57	1-249-417-11	CARBON	1K 5% 1/4W	R1322	1-249-429-11	CARBON	10K 5% 1/4W
R58	1-249-417-11	CARBON	1K 5% 1/4W	R1345	1-249-421-11	CARBON	2.2K 5% 1/4W
△R60	1-249-405-11	CARBON	100 5% 1/4W F	< VARIABLE RESISTOR >			
R61	1-249-423-11	CARBON	3.3K 5% 1/4W	RV1	1-238-601-11	RES, ADJ, CARBON	22K
R62	1-249-425-11	CARBON	4.7K 5% 1/4W	RV2	1-238-600-11	RES, ADJ, CARBON	10K
R63	1-249-414-11	CARBON	560 5% 1/4W	< RELAY >			
R64	1-249-417-11	CARBON	1K 5% 1/4W	RY1201 1-515-920-11 RELAY (24V)			
R65	1-249-410-11	CARBON	270 5% 1/4W				
R66	1-249-421-11	CARBON	2.2K 5% 1/4W				
R67	1-249-425-11	CARBON	4.7K 5% 1/4W				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN**MAIN TC**

Ref. No.	Part No.	Description	Remark					
< TERMINAL >								
* TM1	1-537-264-11	TERMINAL BOARD (ANTENNA)						
< VIBRATOR >								

XT51	1-577-126-31	VIBRATOR, CRYSTAL (7.2MHz)						

* A-4371-393-A	A-4371-393-A	MAIN TC BOARD, COMPLETE						

* 4-942-204-01	4-942-204-01	PLATE, GROUND						
< CAPACITOR >								
C700	1-162-282-31	CERAMIC	100PF	10%	50V			
C701	1-162-290-31	CERAMIC	470PF	10%	50V			
C702	1-137-372-11	FILM	0.022uF	5%	50V			
C703	1-124-907-11	ELECT	10uF	20%	50V			
C704	1-162-292-31	CERAMIC	680PF	10%	50V			
C710	1-162-282-31	CERAMIC	100PF	10%	50V			
C711	1-162-289-31	CERAMIC	390PF	10%	50V			
C712	1-137-372-11	FILM	0.022uF	5%	50V			
C713	1-124-907-11	ELECT	10uF	20%	50V			
C715	1-124-443-00	ELECT	100uF	20%	10V			
C721	1-137-368-11	FILM	0.0047uF	5%	50V			
C722	1-124-903-11	ELECT	1uF	20%	50V			
C723	1-126-963-11	ELECT	4.7uF	20%	50V			
C724	1-137-399-11	FILM	0.1uF	5%	50V			
C725	1-124-907-11	ELECT	10uF	20%	50V			
C726	1-124-903-11	ELECT	1uF	20%	50V			
C727	1-124-902-00	ELECT	0.47uF	20%	50V			
C728	1-126-963-11	ELECT	4.7uF	20%	50V			
C729	1-162-291-31	CERAMIC	560PF	10%	50V			
C730	1-162-301-11	CERAMIC	0.0015uF	30%	16V			
C731	1-164-056-11	CERAMIC	27PF	5%	50V			
C732	1-101-890-00	CERAMIC	75PF	5%	50V			
C733	1-162-288-31	CERAMIC	330PF	10%	50V			
C734	1-164-066-11	CERAMIC	68PF	5%	50V			
C800	1-162-282-31	CERAMIC	100PF	10%	50V			
C801	1-162-290-31	CERAMIC	470PF	10%	50V			
C802	1-137-372-11	FILM	0.022uF	5%	50V			
C803	1-124-907-11	ELECT	10uF	20%	50V			
C804	1-162-292-31	CERAMIC	680PF	10%	50V			
C810	1-162-282-31	CERAMIC	100PF	10%	50V			
C811	1-162-289-31	CERAMIC	390PF	10%	50V			
C812	1-137-372-11	FILM	0.022uF	5%	50V			
C813	1-124-907-11	ELECT	10uF	20%	50V			
C815	1-124-443-00	ELECT	100uF	20%	10V			
C821	1-137-368-11	FILM	0.0047uF	5%	50V			

Ref. No.	Part No.	Description	Remark		
< CONNECTOR >					
C822	1-124-903-11	ELECT	1uF	20%	50V
C823	1-126-963-11	ELECT	4.7uF	20%	50V
C824	1-137-399-11	FILM	0.1uF	5%	50V
C825	1-124-907-11	ELECT	10uF	20%	50V
C826	1-124-903-11	ELECT	1uF	20%	50V
C827	1-124-902-00	ELECT	0.47uF	20%	50V
C828	1-126-963-11	ELECT	4.7uF	20%	50V
C829	1-162-291-31	CERAMIC	560PF	10%	50V
C830	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C831	1-164-056-11	CERAMIC	27PF	5%	50V
C832	1-101-890-00	CERAMIC	75PF	5%	50V
C833	1-162-288-31	CERAMIC	330PF	10%	50V
C834	1-164-066-11	CERAMIC	68PF	5%	50V
C903-908					
C909	1-124-907-11	ELECT	100uF	20%	10V
C910	1-124-907-11	ELECT	10uF	20%	50V
C913	1-126-963-11	ELECT	4.7uF	20%	50V
C915	1-126-933-11	ELECT	100uF	20%	16V
C920	1-162-306-11	CERAMIC	0.01uF	30%	16V
C921	1-124-925-11	ELECT	2.2uF	20%	100V
C922	1-130-848-00	FILM	0.0082uF	5%	100V
C923	1-124-902-00	ELECT	0.47uF	20%	50V
C924	1-137-438-11	FILM	0.0082uF	5%	50V
C925	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C926	1-137-436-11	FILM	0.0039uF	5%	50V
C927	1-137-436-11	FILM	0.0039uF	5%	50V
C928	1-137-399-11	FILM	0.1uF	5%	50V
C929	1-124-120-11	ELECT	220uF	20%	25V
C931	1-124-120-11	ELECT	220uF	20%	25V
C942	1-126-963-11	ELECT	4.7uF	20%	50V
C943	1-124-903-11	ELECT	1uF	20%	50V
C944	1-124-907-11	ELECT	10uF	20%	50V
C945	1-162-306-11	CERAMIC	0.01uF	30%	16V
C946	1-124-925-11	ELECT	2.2uF	20%	100V
< DIODE >					
* CN901	1-566-056-11	PIN, CONNECTOR 4P			
* CN902	1-566-057-11	PIN, CONNECTOR 5P			
CN903	1-564-506-11	PLUG, CONNECTOR 3P			
* CN904	1-564-509-11	PLUG, CONNECTOR 6P			
CN905	1-564-505-11	PLUG, CONNECTOR 2P			
* CN906	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
* CN911	1-560-061-00	PIN, CONNECTOR 3P			
* CN912	1-560-060-00	PIN, CONNECTOR 2P			
< 73 >					
D901	8-719-987-63	DIODE	1N4148M		
D902	8-719-987-63	DIODE	1N4148M		

MAIN TC

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D903	8-719-987-63	DIODE	1N4148M	R723	1-249-429-11	CARBON	10K 5% 1/4W
D904	8-719-987-63	DIODE	1N4148M	R724	1-249-421-11	CARBON	2.2K 5% 1/4W
D905	8-719-987-63	DIODE	1N4148M	R725	1-249-428-11	CARBON	8.2K 5% 1/4W
D906	8-719-987-63	DIODE	1N4148M	R726	1-247-840-00	CARBON	2.4K 5% 1/4W
D907	8-719-987-63	DIODE	1N4148M	R727	1-247-863-91	CARBON	22K 5% 1/4W
D908	8-719-987-63	DIODE	1N4148M	R728	1-249-417-11	CARBON	1K 5% 1/4W
D909	8-719-987-63	DIODE	1N4148M	R731	1-249-430-11	CARBON	12K 5% 1/4W
< IC >				R801	1-247-889-00	CARBON	270K 5% 1/4W
IC903	8-759-098-73	IC	HA12172NT	R802	1-249-404-00	CARBON	82 5% 1/4W
IC904	8-759-111-44	IC	uPC4570C-1	R803	1-247-882-11	CARBON	130K 5% 1/4W
IC905	8-759-111-44	IC	uPC4570C-1	R804	1-247-850-11	CARBON	6.2K 5% 1/4W
IC906	8-759-143-54	IC	uPC1330HA	R811	1-247-889-00	CARBON	270K 5% 1/4W
IC907	8-759-240-81	IC	TC4081BP	R812	1-249-404-00	CARBON	82 5% 1/4W
< COIL >				R813	1-247-882-11	CARBON	130K 5% 1/4W
L701	1-410-780-11	INDUCTOR	27mH	R814	1-247-850-11	CARBON	6.2K 5% 1/4W
L801	1-410-780-11	INDUCTOR	27mH	R815	1-247-863-91	CARBON	22K 5% 1/4W
L901	1-414-223-11	INDUCTOR	470uH	R820	1-249-425-11	CARBON	4.7K 5% 1/4W
< TRANSISTOR >				R821	1-249-429-11	CARBON	10K 5% 1/4W
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE	R822	1-249-431-11	CARBON	15K 5% 1/4W
Q801	8-729-119-78	TRANSISTOR	2SC2785-HFE	R823	1-249-429-11	CARBON	10K 5% 1/4W
Q901	8-729-194-57	TRANSISTOR	2SC945-P	R824	1-249-421-11	CARBON	2.2K 5% 1/4W
Q902	8-729-194-57	TRANSISTOR	2SC945-P	R825	1-249-428-11	CARBON	8.2K 5% 1/4W
Q903	8-729-119-76	TRANSISTOR	2SA1175-HFE	R826	1-247-840-00	CARBON	2.4K 5% 1/4W
Q904	8-729-119-78	TRANSISTOR	2SC2785-HFE	R827	1-247-863-91	CARBON	22K 5% 1/4W
Q905	8-729-119-76	TRANSISTOR	2SA1175-HFE	R828	1-249-417-11	CARBON	1K 5% 1/4W
Q906	8-729-900-89	TRANSISTOR	DTC144ES	R831	1-249-430-11	CARBON	12K 5% 1/4W
Q907	8-729-900-89	TRANSISTOR	DTC144ES	R902	1-249-389-11	CARBON	4.7 5% 1/4W
Q908	8-729-900-89	TRANSISTOR	DTC144ES	R903-906	1-249-413-11	CARBON	470 5% 1/4W
Q909	8-729-900-89	TRANSISTOR	DTC144ES	R911	1-215-451-00	METAL	18K 1% 1/4W
Q910	8-729-900-65	TRANSISTOR	DTA144ES	R912	1-249-440-11	CARBON	82K 5% 1/4W
Q911	8-729-900-65	TRANSISTOR	DTA144ES	R913	1-247-862-11	CARBON	20K 5% 1/4W
Q912	8-729-900-89	TRANSISTOR	DTC144ES	R914-916	1-249-437-11	CARBON	47K 5% 1/4W
< RESISTOR >				R917	1-247-864-11	CARBON	24K 5% 1/4W
R701	1-247-889-00	CARBON	270K 5% 1/4W	R918	1-249-437-11	CARBON	47K 5% 1/4W
R702	1-249-404-00	CARBON	82 5% 1/4W	R919	1-247-863-91	CARBON	22K 5% 1/4W
R703	1-247-882-11	CARBON	130K 5% 1/4W	R920	1-249-429-11	CARBON	10K 5% 1/4W
R704	1-247-850-11	CARBON	6.2K 5% 1/4W	R921	1-249-424-11	CARBON	3.9K 5% 1/4W
R711	1-247-889-00	CARBON	270K 5% 1/4W	R922	1-249-389-11	CARBON	4.7 5% 1/4W
R712	1-249-404-00	CARBON	82 5% 1/4W	R923	1-249-434-11	CARBON	27K 5% 1/4W
R713	1-247-882-11	CARBON	130K 5% 1/4W	R924	1-249-434-11	CARBON	27K 5% 1/4W
R714	1-247-850-11	CARBON	6.2K 5% 1/4W	R925	1-249-429-11	CARBON	10K 5% 1/4W
R715	1-247-863-91	CARBON	22K 5% 1/4W	R926	1-249-389-11	CARBON	4.7 5% 1/4W
R720	1-249-425-11	CARBON	4.7K 5% 1/4W	▲R931	1-215-905-11	METAL OXIDE	10 5% 3W F
R721	1-249-429-11	CARBON	10K 5% 1/4W	R932	1-249-426-11	CARBON	5.6K 5% 1/4W
R722	1-249-431-11	CARBON	15K 5% 1/4W	R933	1-249-442-11	CARBON	510 5% 1/4W
< DIODE >				R934	1-249-441-11	CARBON	100K 5% 1/4W
< CAPACITOR >				R935	1-249-441-11	CARBON	100K 5% 1/4W

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN TC**OPEN/UP SW****PANEL**

Ref. No.	Part No.	Description	Remark
R936	1-249-429-11	CARBON	10K 5% 1/4W
R941	1-249-436-11	CARBON	39K 5% 1/4W
R942	1-247-863-91	CARBON	22K 5% 1/4W
R943	1-249-436-11	CARBON	39K 5% 1/4W
R944	1-249-425-11	CARBON	4.7K 5% 1/4W
R945	1-247-863-91	CARBON	22K 5% 1/4W
R946	1-249-421-11	CARBON	2.2K 5% 1/4W
R947	1-249-421-11	CARBON	2.2K 5% 1/4W
R948	1-247-863-91	CARBON	22K 5% 1/4W
R949	1-249-438-11	CARBON	56K 5% 1/4W
R950	1-249-437-11	CARBON	47K 5% 1/4W
R951	1-249-437-11	CARBON	47K 5% 1/4W
R952	1-249-441-11	CARBON	100K 5% 1/4W
R953	1-249-425-11	CARBON	4.7K 5% 1/4W
R954	1-249-429-11	CARBON	10K 5% 1/4W
R955	1-249-441-11	CARBON	100K 5% 1/4W
R956	1-249-441-11	CARBON	100K 5% 1/4W
R957	1-249-429-11	CARBON	10K 5% 1/4W
< VARIABLE RESISTOR >			
RV701	1-230-496-11	RES, ADJ, CARBON	10K
RV702	1-230-496-11	RES, ADJ, CARBON	10K
RV703	1-230-496-11	RES, ADJ, CARBON	10K
RV704	1-230-499-11	RES, ADJ, CARBON	100K
RV801	1-230-496-11	RES, ADJ, CARBON	10K
RV802	1-230-496-11	RES, ADJ, CARBON	10K
RV803	1-230-496-11	RES, ADJ, CARBON	10K
RV804	1-230-499-11	RES, ADJ, CARBON	100K
RV901	1-230-495-11	RES, ADJ, CARBON	2.2K
RV902	1-230-495-11	RES, ADJ, CARBON	2.2K
< TRANSFORMER >			
T901	1-433-349-11	TRANSFORMER, BIAS OSCILLATION	

*	1-638-731-11	OPEN/UP SW BOARD	

< CONNECTOR >			
* CN705	1-566-214-11	PIN, CONNECTOR (PC BOARD)	2P
< SWITCH >			
S702	1-571-300-21	SWITCH, ROTARY (OPEN/UP)	

Ref. No.	Part No.	Description	Remark
*	A-4377-046-A	PANEL BOARD, COMPLETE	*****
< CAPACITOR >			
C601	1-164-159-11	CERAMIC	0.1uF
C602	1-124-261-00	ELECT	10uF 20% 50V
C603	1-104-905-11	DOUBLE LAYERS	0.22F
C604	1-164-159-11	CERAMIC	0.1uF
C605	1-136-169-00	FILM	0.22uF 5% 50V
C607	1-162-306-11	CERAMIC	0.01uF 30% 16V
C608	1-162-306-11	CERAMIC	0.01uF 30% 16V
C609	1-124-910-11	ELECT	47uF 20% 50V
C610	1-162-306-11	CERAMIC	0.01uF 30% 16V
C1103	1-162-282-31	CERAMIC	100PF 10% 50V
C1104	1-124-257-00	ELECT	2.2uF 20% 50V
C1105	1-124-907-11	ELECT	10uF 20% 50V
C1106	1-124-907-11	ELECT	10uF 20% 50V
C1107	1-124-464-11	ELECT	0.22uF 20% 50V
C1108	1-137-442-11	FILM	0.039uF 5% 50V
C1109	1-137-441-11	FILM	0.027uF 5% 50V
C1110	1-137-457-11	FILM	0.0027uF 5% 50V
C1111	1-162-303-11	CERAMIC	0.0033uF 20% 16V
C1112	1-162-293-31	CERAMIC	820PF 10% 50V
C1113	1-162-306-11	CERAMIC	0.01uF 30% 16V
C1114	1-124-589-11	ELECT	47uF 20% 16V
C1115	1-124-257-00	ELECT	2.2uF 20% 50V
C1120	1-162-306-11	CERAMIC	0.01uF 30% 16V
C1121	1-162-306-11	CERAMIC	0.01uF 30% 16V
C1123	1-162-282-31	CERAMIC	100PF 10% 50V
C1143	1-104-666-11	ELECT	220uF 20% 6.3V
C1153	1-162-282-31	CERAMIC	100PF 10% 50V
C1154	1-124-257-00	ELECT	2.2uF 20% 50V
C1155	1-104-666-11	ELECT	220uF 20% 10V
C1156	1-104-666-11	ELECT	220uF 20% 10V
C1157	1-124-464-11	ELECT	0.22uF 20% 50V
C1158	1-137-442-11	FILM	0.039uF 5% 50V
C1159	1-137-441-11	FILM	0.027uF 5% 50V
C1160	1-137-457-11	FILM	0.0027uF 5% 50V
C1161	1-162-303-11	CERAMIC	0.0033uF 20% 16V
C1162	1-162-293-31	CERAMIC	820PF 10% 50V
C1163	1-162-306-11	CERAMIC	0.01uF 30% 16V
C1164	1-124-589-11	ELECT	47uF 20% 16V
C1165	1-124-257-00	ELECT	2.2uF 20% 50V
C1173	1-162-282-31	CERAMIC	100PF 10% 50V
C1197	1-162-306-11	CERAMIC	0.01uF 30% 16V

PANEL

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
* CN601	1-750-416-11	CONNECTOR, FFC/FPC 11P	
CN1101	1-750-428-11	CONNECTOR, FFC/FPC 23P	
< COMPOSITION CIRCUIT BLOCK >			
CP601	1-239-505-11	COMPOSITION CIRCUIT BLOCK (220PX9)	
CP602	1-239-505-11	COMPOSITION CIRCUIT BLOCK (220PX9)	
* CP603	1-233-216-11	COMPOSITION CIRCUIT BLOCK (220PX13)	
< DIODE >			
D601	8-719-987-63	DIODE 1N4148M	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
D604	8-719-200-82	DIODE 11ES2	
D622	8-719-987-63	DIODE 1N4148M	
D625	8-719-987-63	DIODE 1N4148M	
D627	8-719-987-63	DIODE 1N4148M	
D628	8-719-987-63	DIODE 1N4148M	
D1131	8-719-313-48	LED SEL6210S-TH12 (TAPE)	
D1132	8-719-313-48	LED SEL6210S-TH12 (CD)	
D1133	8-719-313-48	LED SEL6210S-TH12 (TUNER)	
D1134	8-719-313-48	LED SEL6210S-TH12 (VIDEO)	
D1145	8-719-038-63	LED SEL5220S-TH8C (VOLUME)	
D1150	8-719-987-63	DIODE 1N4148M	
D1151	8-719-987-63	DIODE 1N4148M	
D1152	8-719-987-63	DIODE 1N4148M	
D1160	8-719-038-63	LED SEL5220S-TH8C (FLAT)	
D1161	8-719-038-63	LED SEL5220S-TH8C (DANCE)	
D1162	8-719-038-63	LED SEL5220S-TH8C (POPS)	
D1163	8-719-038-63	LED SEL5220S-TH8C (ROCK)	
D1164	8-719-038-63	LED SEL5220S-TH8C (CLASSIC)	
D1171	8-719-987-63	DIODE 1N4148M	
< FLUORESCENT INDICATOR >			
FL601	1-517-259-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC601	8-759-325-41	IC uPD78042AGF-022-3B9	
IC602	8-749-920-83	IC GP1U52XB	
IC1101	8-759-634-51	IC M5218AP	
IC1102	8-759-634-51	IC M5218AP	
IC1103	8-759-820-62	IC LB1639	
IC1104	8-759-916-12	IC SN74HC00AN	
IC1106	8-759-000-48	IC MC14052BCP	
< COIL >			
L601	1-410-521-11	INDUCTOR 100uH	

Ref. No.	Part No.	Description	Remark
< TRANSISTOR >			
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q603	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1102	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1104	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1105	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1121	8-729-422-57	TRANSISTOR UN4111	
Q1124	8-729-900-36	TRANSISTOR DTC124ES	
Q1125	8-729-900-36	TRANSISTOR DTC124ES	
Q1126	8-729-900-36	TRANSISTOR DTC124ES	
Q1141	8-729-900-63	TRANSISTOR DTA124ES	
Q1143	8-729-900-80	TRANSISTOR DTC114ES	
Q1144	8-729-900-80	TRANSISTOR DTC114ES	
Q1145	8-729-422-57	TRANSISTOR UN4111	
Q1147	8-729-900-36	TRANSISTOR DTC124ES	
Q1148	8-729-900-63	TRANSISTOR DTA124ES	
Q1152	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1153	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1154	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1155	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< RESISTOR >			
R601	1-249-417-11	CARBON 1K 5% 1/4W	
R603	1-249-437-11	CARBON 47K 5% 1/4W	
R604	1-247-863-91	CARBON 22K 5% 1/4W	
R605	1-247-863-91	CARBON 22K 5% 1/4W	
R606	1-249-429-11	CARBON 10K 5% 1/4W	
R607	1-249-429-11	CARBON 10K 5% 1/4W	
R608	1-249-423-11	CARBON 3.3K 5% 1/4W	
R609	1-249-417-11	CARBON 1K 5% 1/4W	
R610	1-249-425-11	CARBON 4.7K 5% 1/4W	
R611	1-249-429-11	CARBON 10K 5% 1/4W	
R613	1-249-429-11	CARBON 10K 5% 1/4W	
R614	1-249-429-11	CARBON 10K 5% 1/4W	
R615	1-247-863-91	CARBON 22K 5% 1/4W	
R616	1-247-863-91	CARBON 22K 5% 1/4W	
R621	1-249-419-11	CARBON 1.5K 5% 1/4W	
R622	1-247-807-31	CARBON 100 5% 1/4W	
R623	1-249-406-11	CARBON 120 5% 1/4W	
R624	1-249-406-11	CARBON 120 5% 1/4W	
R635	1-249-419-11	CARBON 1.5K 5% 1/4W	
R636	1-247-807-31	CARBON 100 5% 1/4W	
R637	1-249-406-11	CARBON 120 5% 1/4W	
R638	1-249-406-11	CARBON 120 5% 1/4W	
R639	1-249-407-11	CARBON 150 5% 1/4W	
R640	1-249-408-11	CARBON 180 5% 1/4W	

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R641	1-247-815-91	CARBON	220 5% 1/4W	R1160	1-249-417-11	CARBON	1K 5% 1/4W
R642	1-249-410-11	CARBON	270 5% 1/4W	R1161	1-249-441-11	CARBON	100K 5% 1/4W
R643	1-249-411-11	CARBON	330 5% 1/4W	R1164	1-249-431-11	CARBON	15K 5% 1/4W
R644	1-249-413-11	CARBON	470 5% 1/4W	R1165	1-249-439-11	CARBON	68K 5% 1/4W
R645	1-249-414-11	CARBON	560 5% 1/4W	R1166	1-249-423-11	CARBON	3.3K 5% 1/4W
R646	1-249-416-11	CARBON	820 5% 1/4W	R1167	1-249-440-11	CARBON	82K 5% 1/4W
R647	1-249-418-11	CARBON	1.2K 5% 1/4W	R1168	1-249-412-11	CARBON	390 5% 1/4W
R648	1-249-421-11	CARBON	2.2K 5% 1/4W	R1169	1-249-427-11	CARBON	6.8K 5% 1/4W
R649	1-249-424-11	CARBON	3.9K 5% 1/4W	R1170	1-247-862-11	CARBON	20K 5% 1/4W
R661-666	1-249-417-11	CARBON	1K 5% 1/4W	R1172	1-247-863-91	CARBON	22K 5% 1/4W
R672	1-249-441-11	CARBON	100K 5% 1/4W	R1173	1-249-421-11	CARBON	2.2K 5% 1/4W
R673	1-247-815-91	CARBON	220 5% 1/4W	R1174	1-249-425-11	CARBON	4.7K 5% 1/4W
R1102	1-249-426-11	CARBON	5.6K 5% 1/4W	R1176	1-249-420-11	CARBON	1.8K 5% 1/4W
R1103	1-249-431-11	CARBON	15K 5% 1/4W	R1177	1-249-440-11	CARBON	82K 5% 1/4W
R1104	1-249-425-11	CARBON	4.7K 5% 1/4W	R1178	1-249-412-11	CARBON	390 5% 1/4W
R1105	1-247-863-91	CARBON	22K 5% 1/4W	R1179	1-249-427-11	CARBON	6.8K 5% 1/4W
R1110	1-249-417-11	CARBON	1K 5% 1/4W	R1180	1-247-862-11	CARBON	20K 5% 1/4W
R1111	1-249-441-11	CARBON	100K 5% 1/4W	R1181	1-249-434-11	CARBON	27K 5% 1/4W
R1114	1-249-431-11	CARBON	15K 5% 1/4W	R1183-1185	1-249-437-11	CARBON	47K 5% 1/4W
R1115	1-249-439-11	CARBON	68K 5% 1/4W	R1189	1-249-417-11	CARBON	1K 5% 1/4W
R1116	1-249-423-11	CARBON	3.3K 5% 1/4W	R1191	1-249-437-11	CARBON	47K 5% 1/4W
R1117	1-249-440-11	CARBON	82K 5% 1/4W	R1192	1-249-412-11	CARBON	390 5% 1/4W
R1118	1-249-412-11	CARBON	390 5% 1/4W	R1193	1-249-427-11	CARBON	6.8K 5% 1/4W
R1119	1-249-427-11	CARBON	6.8K 5% 1/4W	R1194	1-247-863-91	CARBON	22K 5% 1/4W
R1120	1-247-862-11	CARBON	20K 5% 1/4W	R1195	1-249-425-11	CARBON	4.7K 5% 1/4W
R1122	1-247-863-91	CARBON	22K 5% 1/4W	R1196	1-249-425-11	CARBON	4.7K 5% 1/4W
R1123	1-249-421-11	CARBON	2.2K 5% 1/4W	R1199	1-247-874-11	CARBON	62K 5% 1/4W
R1124	1-249-425-11	CARBON	4.7K 5% 1/4W	< COMPOSITION CIRCUIT BLOCK >			
R1125	1-247-863-91	CARBON	22K 5% 1/4W	RP601	1-239-598-11	COMPOSITION CIRCUIT BLOCK (100KX8)	
R1126	1-249-420-11	CARBON	1.8K 5% 1/4W	RP602	1-232-998-11	COMPOSITION CIRCUIT BLOCK (100KX7)	
R1127	1-249-440-11	CARBON	82K 5% 1/4W	< VARIABLE RESISTOR >			
R1128	1-249-412-11	CARBON	390 5% 1/4W	RV1101	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)	
R1129	1-249-427-11	CARBON	6.8K 5% 1/4W	RV1109	1-223-539-12	RES, VAR, CARBON 100K/100K (VOLUME)	
R1130	1-247-862-11	CARBON	20K 5% 1/4W	< SWITCH >			
R1131	1-249-434-11	CARBON	27K 5% 1/4W	S601	1-554-303-21	SWITCH, TACTILE (BAND)	
R1132	1-249-412-11	CARBON	390 5% 1/4W	S602	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1135	1-247-863-91	CARBON	22K 5% 1/4W	S603	1-554-303-21	SWITCH, TACTILE (- (DUAL MODE TUNING))	
R1136-1138	1-249-412-11	CARBON	390 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (+ (DUAL MODE TUNING))	
R1139	1-249-417-11	CARBON	1K 5% 1/4W	S616	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1141	1-249-437-11	CARBON	47K 5% 1/4W	S617	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
R1142	1-249-412-11	CARBON	390 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (TAPE)	
R1143	1-249-427-11	CARBON	6.8K 5% 1/4W	S621	1-554-303-21	SWITCH, TACTILE (CD)	
R1145	1-249-412-11	CARBON	390 5% 1/4W	S622	1-554-303-21	SWITCH, TACTILE (TUNER)	
R1149	1-247-874-11	CARBON	62K 5% 1/4W	S623	1-554-303-21	SWITCH, TACTILE (VIDEO)	
R1152	1-249-426-11	CARBON	5.6K 5% 1/4W				
R1154	1-249-425-11	CARBON	4.7K 5% 1/4W				
R1155	1-247-863-91	CARBON	22K 5% 1/4W				

PANEL **POWER** **POWER AMPLIFIER**

Ref. No.	Part No.	Description	Remark
S624	1-554-303-21	SWITCH, TACTILE (TUNING/PRESET)	
S625	1-554-303-21	SWITCH, TACTILE (FLAT (PRESET EQUALIZER))	
S626	1-554-303-21	SWITCH, TACTILE (DANCE (PRESET EQUALIZER))	
S627	1-554-303-21	SWITCH, TACTILE (POPS (PRESET EQUALIZER))	
S628	1-554-303-21	SWITCH, TACTILE (ROCK (PRESET EQUALIZER))	
S629	1-554-303-21	SWITCH, TACTILE (CLASSIC (PRESET EQUALIZER))	
		< VIBRATOR >	
X601	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)	

*	1-650-434-21	POWER BOARD (Canadian)	

	1-533-217-31	HOLDER, FUSE	
		< CAPACITOR >	
△C1301	1-161-744-51	CERAMIC	0.01uF
C1348	1-164-159-11	CERAMIC	0.1uF
			400V
		< CONNECTOR >	
CN1350	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P	
* CN1351	1-568-226-11	PIN, CONNECTOR 2P	
		< FUSE >	
△F1301-1304			
	1-576-108-11	FUSE (4A/125V)	
		< RESISTOR >	
△R1391	1-202-725-00	SOLID	3.3M 10% 1/2W
		< TRANSFORMER >	
△T1301	1-427-731-11	TRANSFORMER, POWER	

*	A-4371-530-A	POWER AMPLIFIER BOARD, COMPLETE	(Canadian)
*	A-4377-807-A	POWER AMPLIFIER BOARD, COMPLETE	(US)

		< CAPACITOR >	
C1201	1-124-925-11	ELECT	2.2uF
C1202	1-162-286-21	CERAMIC	220PF
C1203	1-162-286-21	CERAMIC	220PF
C1204	1-124-910-11	ELECT	47uF
C1205	1-124-910-11	ELECT	47uF
C1206	1-124-122-11	ELECT	100uF
			20% 50V

Ref. No.	Part No.	Description	Remark
C1207	1-136-165-00	FILM	0.1uF 5% 50V (Canadian)
C1207	1-164-159-11	CERAMIC	0.1uF 50V (US)
C1208	1-124-916-11	ELECT	22uF 20% 63V
C1209	1-136-165-00	FILM	0.1uF 5% 50V (Canadian)
C1209	1-164-159-11	CERAMIC	0.1uF 50V (US)
C1210	1-136-163-00	FILM	0.068uF 5% 50V
C1211	1-136-163-00	FILM	0.068uF 5% 50V
C1220	1-104-666-11	ELECT	220uF 20% 6.3V (US)
C1220	1-126-966-11	ELECT	33uF 20% 50V (Canadian)
C1251	1-124-925-11	ELECT	2.2uF 20% 100V
C1252	1-162-286-21	CERAMIC	220PF 10% 50V
C1253	1-162-286-21	CERAMIC	220PF 10% 50V
C1254	1-124-910-11	ELECT	47uF 20% 50V
C1255	1-124-910-11	ELECT	47uF 20% 50V
C1256	1-124-122-11	ELECT	100uF 20% 50V
C1257	1-136-165-00	FILM	0.1uF 5% 50V (Canadian)
C1257	1-164-159-11	CERAMIC	0.1uF 50V (US)
C1260	1-136-163-00	FILM	0.068uF 5% 50V
C1261	1-136-163-00	FILM	0.068uF 5% 50V
		< CONNECTOR >	
* CN1203 1-566-042-11 PIN, CONNECTOR 3P			
		< DIODE >	
D1201	8-719-987-63	DIODE	1N4148M
D1203	8-719-987-63	DIODE	1N4148M (US)
D1205	8-719-987-63	DIODE	1N4148M (US)
D1251	8-719-987-63	DIODE	1N4148M
		< IC >	
IC1201	8-749-900-24	IC	STK-4162MK2 (US)
IC1201	8-749-900-96	IC	STK-4142MK2 (Canadian)
		< TRANSISTOR >	
Q1201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
Q1202	8-729-900-80	TRANSISTOR	DTC114ES (Canadian)
Q1203	8-729-119-78	TRANSISTOR	2SC2785-HFE (Canadian)
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
		< RESISTOR >	
R1201	1-249-417-11	CARBON	1K 5% 1/4W
R1202	1-249-438-11	CARBON	56K 5% 1/4W

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POWER AMPLIFIER

POWER PRIMARY

POWER SECONDARY

SW

TABLE MOTOR

Ref. No.	Part No.	Description			Remark
R1203	1-249-414-11	CARBON	560	5%	1/4W
R1204	1-249-438-11	CARBON	56K	5%	1/4W
R1205-1208					
	1-249-425-11	CARBON	4.7K	5%	1/4W
△R1209	1-212-881-11	FUSIBLE	100	5%	1/4W F
△R1210	1-217-151-00	METAL PLATE	0.22		2W F
R1211	1-249-417-11	CARBON	1K	5%	1/4W
R1212	1-249-431-11	CARBON	15K	5%	1/4W
R1213	1-249-441-11	CARBON	100K	5%	1/4W
R1214-1217					
	1-249-421-11	CARBON	2.2K	5%	1/4W
R1218	1-249-393-11	CARBON	10	5%	1/4W
R1227	1-249-429-11	CARBON	10K	5%	1/4W (Canadian)
R1227	1-249-432-11	CARBON	18K	5%	1/4W (US)
R1228	1-247-881-00	CARBON	120K	5%	1/4W
R1229	1-249-429-11	CARBON	10K	5%	1/4W (US)
R1229	1-249-437-11	CARBON	47K	5%	1/4W (Canadian)
R1230	1-249-423-11	CARBON	3.3K	5%	1/4W (US)
R1230	1-249-439-11	CARBON	68K	5%	1/4W (Canadian)
R1231	1-249-417-11	CARBON	1K	5%	1/4W (Canadian)
R1232	1-249-434-11	CARBON	27K	5%	1/4W (Canadian)
R1238	1-247-863-91	CARBON	22K	5%	1/4W (Canadian)
R1239	1-249-426-11	CARBON	5.6K	5%	1/4W (Canadian)
△R1243	1-217-637-00	FUSIBLE	1	5%	1/4W F (US)
△R1243	1-249-389-11	CARBON	4.7	5%	1/4W F (Canadian)
R1251	1-249-417-11	CARBON	1K	5%	1/4W
R1252	1-249-438-11	CARBON	56K	5%	1/4W
R1253	1-249-414-11	CARBON	560	5%	1/4W
R1254	1-249-438-11	CARBON	56K	5%	1/4W
R1255-1258					
	1-249-425-11	CARBON	4.7K	5%	1/4W
△R1259	1-212-881-11	FUSIBLE	100	5%	1/4W F
△R1260	1-217-151-00	METAL PLATE	0.22		2W F
R1261	1-249-417-11	CARBON	1K	5%	1/4W
R1262	1-249-431-11	CARBON	15K	5%	1/4W
R1263	1-249-441-11	CARBON	100K	5%	1/4W
R1268	1-249-393-11	CARBON	10	5%	1/4W

Ref. No.	Part No.	Description	Remark
*	1-656-897-11	POWER PRIMARY BOARD (US)	*****
	1-533-217-31	HOLDER, FUSE	
		< CAPACITOR >	
△C1301	1-161-744-51	CERAMIC	0.01uF 400V
		< CONNECTOR >	
CN1350	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
CN1351	1-564-321-00	PIN, CONNECTOR 2P	
		< FUSE >	
△F1211	1-533-419-11	FUSE (4A/125V)	
		< RESISTOR >	
△R1391	1-202-725-00	SOLID	3.3M 10% 1/2W

*	1-656-896-11	POWER SECONDARY BOARD (US)	*****
	1-533-217-31	HOLDER, FUSE	
		< CAPACITOR >	
C1348	1-164-159-11	CERAMIC	0.1uF 50V
		< FUSE >	
△F1303	1-533-419-11	FUSE (4A/125V)	
△F1304	1-533-419-11	FUSE (4A/125V)	

*	1-653-356-11	SW BOARD	*****
		< CONNECTOR >	
* CN951	1-568-942-11	PIN, CONNECTOR 4P	
		< SWITCH >	
S951	1-692-785-11	SWITCH, PUSH (3 KEY) (DOLBY NR/TAPE SELECT/DUBBING SPEED)	

*	1-638-729-11	TABLE MOTOR BOARD	*****
		< CAPACITOR >	
C704	1-162-302-11	CERAMIC	0.0022uF 30% 16V

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--	--

TABLE MOTOR

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
*	CN707	1-573-044-11 SOCKET, CONNECTOR 5P	
< DIODE >			
D701	8-719-970-19	PHOTO SENSOR GP1A521	
< RESISTOR >			
R701	1-249-416-11	CARBON 820 5% 1/4W	

MISCELLANEOUS			

5	1-751-026-11	WIRE (PLAT TYPE) (11 CORE)	
6	1-751-747-11	WIRE (FLAT TYPE) (23 CORE)	
7	1-765-234-11	CORD, CONNECTION (17 CORE)	
△10	1-690-609-21	CORD, POWER	
* 58	1-690-708-11	CORD (WITH CONNECTOR) (US)	
58	1-765-058-11	CORD (WITH CONNECTOR) (Canadian)	
* 107	1-452-538-11	MAGNET	
158	1-765-195-11	WIRE (FLAT TYPE) (7 CORE)	
167	1-537-645-11	JUMPER, FILM (WITH TERMINAL)	
169	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
△201	8-848-144-11	PICK-UP, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
△F1211	1-533-419-11	FUSE (4A/125V) (US)	
△F1301	1-576-108-11	FUSE (4A/125V) (Canadian)	
△F1302	1-576-108-11	FUSE (4A/125V) (Canadian)	
△F1303	1-533-419-11	FUSE (4A/125V) (US)	
△F1303	1-576-108-11	FUSE (4A/125V) (Canadian)	
△F1304	1-533-419-11	FUSE (4A/125V) (US)	
△F1304	1-576-108-11	FUSE (4A/125V) (Canadian)	
HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
M101	X-4917-504-1	MOTOR ASSY (SLED MOTOR)	
M102	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
M701	A-4353-976-A	MOTOR ASSY, ROTARY	
M702	A-4353-974-A	MOTOR ASSY, LOADING	
M901	X-3362-377-1	MOTOR (WH) ASSY	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR) (DOWN)	
△S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
△T1301	1-427-731-11	TRANSFORMER, POWER (Canadian)	
△T1301	1-427-926-11	TRANSFORMER, POWER (US)	

Ref. No.	Part No.	Description	Remark
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ACCESSORIES & PACKING MATERIALS

1-467-430-11 COMMANDER, STANDARD (RM-S221)

* 3-376-136-01 CUSHION (HALF)

4-941-762-01 COVER (MLY), BATTERY (For RM-S221)

* 4-963-173-11 CUSHION

* 4-973-139-02 CUSHION

HARDWARE LIST

- #1 7-621-255-15 SCREW +P 2X3
- #2 7-621-775-20 SCREW +B 2.6X5
- #3 7-623-921-01 RING, RETAINING, CAPSTAN
- #4 7-682-554-04 SCREW +B 3X25
- #5 7-685-650-79 SCREW +BVTP 3X16 TYPE2 N-S
- #6 7-685-103-19 SCREW +P 2X5 TYPE2 NON-SLIT
- #7 7-685-133-19 SCREW +P 2.6X6 TYPE2
- #8 7-682-961-01 SCREW +PSW 4X8
- #9 7-685-135-19 SCREW +BTP 2.6X10 TYPE2 N-S
- #10 7-685-136-19 SCREW +P 2.6X12 TYPE2 NON-SLIT
- #11 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
- #12 7-685-647-79 SCREW +BVTP 3X10 TYPE2 N-S
- #13 7-688-001-01 W 2, SMALL
- #14 7-621-849-00 SCREW, TAPPING
- #15 7-685-871-01 SCREW +BVTT 3X6 (S)
- #16 7-682-560-04 SCREW +BVTT 4X6 (S)

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Sony Corporation
Consumer A & V Products Company
Home A & V Products Div.

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Quality Engineering Dept.

SS-G3000

SERVICE MANUAL

*US Model
Canadian Model*

SPECIFICATIONS

Speaker System	3-way speaker system
Mass	Approx. 3 kg PC speaker (6 lb 10 oz)
Dimensions	Approx. 220 × 395 × 180 mm (8 ³ / ₄ × 15 ⁵ / ₈ × 7 ¹ / ₈ inches) (w/h/d, including projections)

Design and specifications are subject to change without notice.



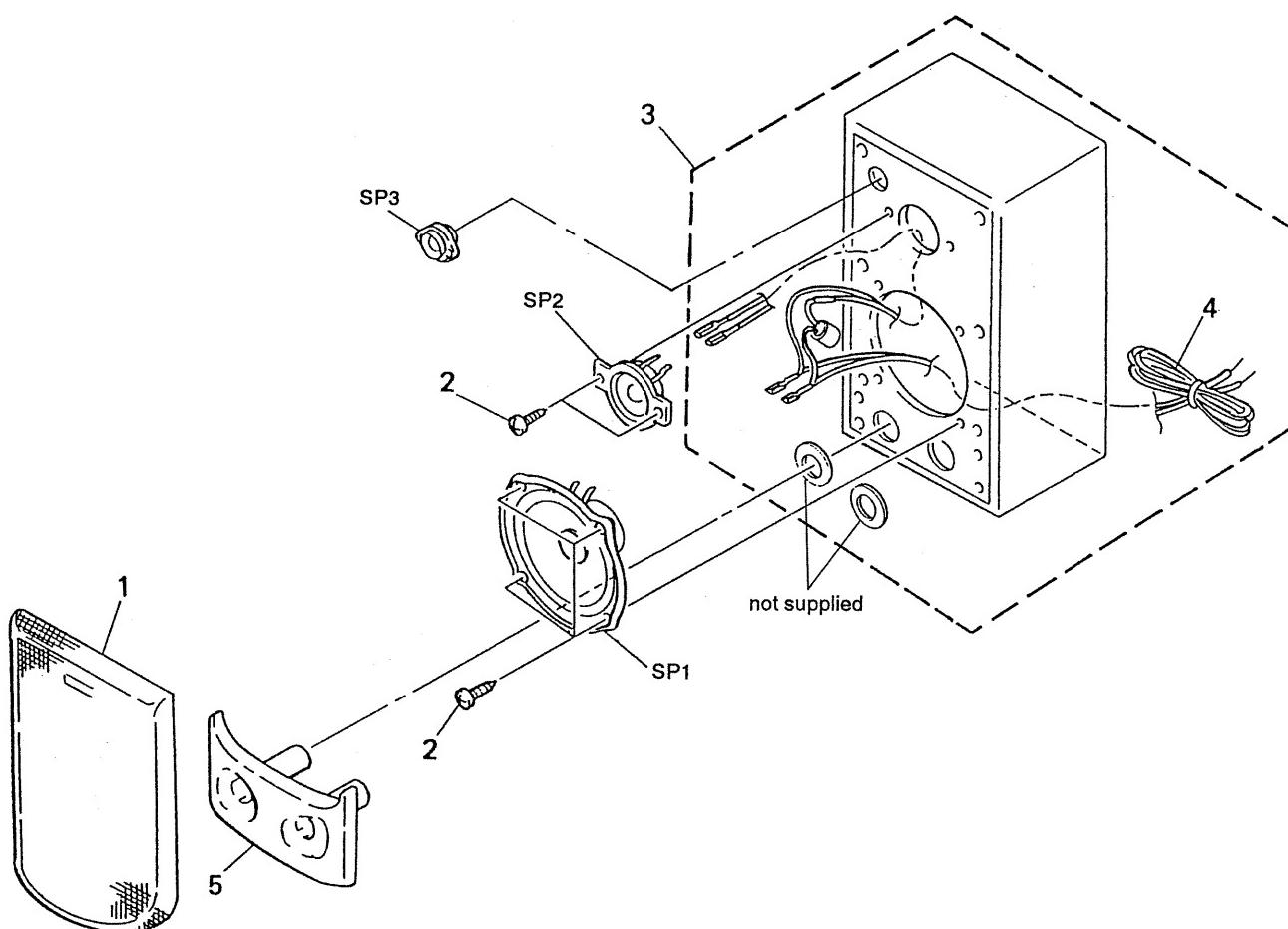
This is the speaker system in LBT-G3000.

SPEAKER SYSTEM
SONY®

EXPLODED VIEW AND PARTS LIST

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description	Remark
1	X-4944-820-1	FRAME ASSY, GRILLE	
2	4-874-614-61	SCREW (M3.5X16)	
* 3	A-4361-257-A	CABINET ASSY, SPEAKER	
4	1-575-696-11	CORD, SPEAKER (WITH CAPACITOR)	
* 5	X-4944-819-1	DUCT ASSY, ORNAMENTAL	
SP1	1-504-173-11	SPEAKER (16cm) (Canadian)	
SP1	1-544-451-31	SPEAKER (16cm) (US)	
SP2	1-504-174-11	SPEAKER (5cm)	
SP3	1-544-453-21	SPEAKER (2cm)	

Ref. No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

*	4-964-535-01	CUSHION	